


Puzzle Talk - Kindergarten

Bird Expression Subtraction (Level 1)



ST Math
Created by MIND Education

These facilitation suggestions are what a student-led discussion might look like when looking at puzzles in Level 1. Depending on how students respond, it likely would take one session for Level 1.

Description	<ul style="list-style-type: none"> • Puzzle Location: Grade K > Understanding Addition and Subtraction Within 10 > Bird Expression Subtraction • Topic: Understanding addition and subtraction up to 10 • Purpose of the Puzzle Talk: Focus on student thinking and developing problem solving skills using guiding questions for each step in the Problem Solving Process • Preparation: View the Game in a Minute Video • Gather Materials: Provide students with Bird Expression Game Mat 01 in a clear plastic sleeve, a whiteboard, and a dry-erase marker with an eraser 	 <p>click here for puzzle</p>
Notice and Wonder	<ul style="list-style-type: none"> • Display the first puzzle from Level 1. • Ask students: "What do you notice? What do you wonder about this puzzle?" • Have students turn and talk to a neighbor. • Allow a few students to share out. 	
Predict and Justify	<ul style="list-style-type: none"> • Work together to count out the number of birds shown in the sky. "What do you think we need to do to solve this puzzle?" • Tell students: "Use your Bird Expressions Game Mat to solve the puzzle. Share your thinking with a neighbor." 	
Test and Observe	<ul style="list-style-type: none"> • Have students share their solutions. Select one of their solutions to try. • Solve the puzzle. • Watch the feedback together. Have students describe what happened. 	
Analyze and Learn	<ul style="list-style-type: none"> • Ask students what they learned from the feedback about their strategy. • You can use the animation controls to replay and examine what happens in the puzzle. <ul style="list-style-type: none"> ◦ If the puzzle was correct, discuss why the strategy used was successful. ◦ If the puzzle was incorrect, analyze what happened and consider how to adjust the strategy to try again. • Ask students what the minus sign represents and what happens to the total number of birds when some of the birds fly away. • Show the next puzzle in Level 1. • Have students come up with a strategy and model it on their Bird Expressions Game Mat. Have students share their strategy with their partners. • After students discuss, have 2-3 volunteers share their strategies with the class. Discuss each strategy. Ask students if they agree or disagree and what they think will happen. Share students' thinking as a whole class. • Select one of the strategies to try. Play the puzzles and ask students to observe and see what happens. <ul style="list-style-type: none"> ◦ You can use the animation controls to pause the puzzle while students check if their answer matches the puzzle on the screen. Discuss how this might provide evidence for why the solution will work or not work. • Repeat with additional puzzles in Level 1. • Begin a list of students' strategies for subtraction. 	