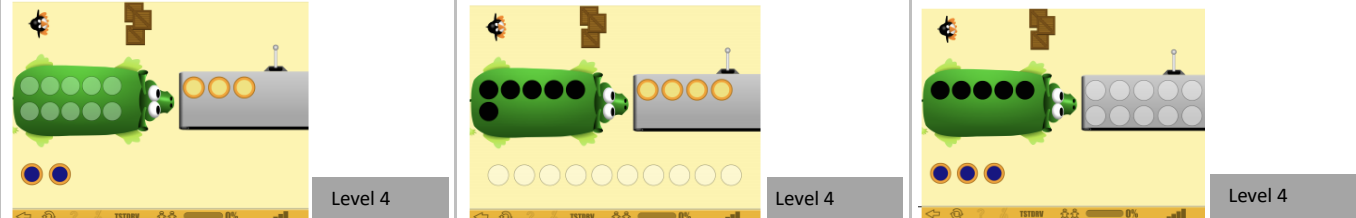


Standards	<p>2.OA.A.1: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p> <p>2.OA.B.2: Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.</p>
Game Description	<p>Select the number of pies on the ground or on the table to equal the number of pies on the monster's back when added to the given pies that are already on the table or the ground. Also, may need to select the number of pies on the monster's back to show the total number of pies shown on the table and the ground. Use the model to solve addition and subtraction problems. Includes missing addend.</p>
Suggested Puzzles	
Materials	<p>Game mats, 2 color counters, paper and pencil, dry erase markers, whiteboards</p>
Directions	<ul style="list-style-type: none"> ● Play Level 1 of the Pie Monster Addition game to introduce students to the game. Have an informal discussion about what they notice happening in the puzzle. ● Play a puzzle from Level 2 and then Level 3. Discuss the differences in the puzzles. ● Have students write an equation for each puzzle with a symbol for the unknown. ● Project a puzzle from Level 4. Have the students model the problem and solution using their math tools. ● Have students explain to a neighbor how their model represents the problem and solution. Select different students to share (look for different types of strategies) and discuss as a class.
Sample Questions	<ul style="list-style-type: none"> ● What is the question this puzzle is asking us to solve? ● How did you solve the puzzle? ● Explain how your model represents the puzzle. ● Can you write an equation to represent this puzzle?
What to look for	<p>How does the student:</p> <ul style="list-style-type: none"> ● solve the puzzles? (Are they thinking flexibly about addition and subtraction? Do they struggle with specific problem types? (ex. result unknown, change unknown, start unknown)) ● write an equation to represent the problem? (Great opportunity to connect the visual to the symbolic and reinforce the meaning of equality as "same as".)
Extensions	<ul style="list-style-type: none"> ● Show students a puzzle. Have them create a word problem from the puzzle. ● Give students a word problem and have them represent the problem on a game mat, solve and write an equation with a symbol for the unknown. Ex: Joe put a quarter in the gumball machine and got some gumballs. He put another quarter in the machine and got 4 more gumballs. He now has 9 gumballs. How many gumballs did he get the first time? ● Ask questions with larger numbers. Ex: Joe sells lemon and blueberry pies in his bakery. He has 46 pies altogether. He has 19 lemon pies. How many blueberry pies does he have? Have students relate the question to the Pie Monster game.