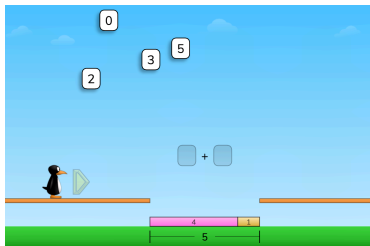
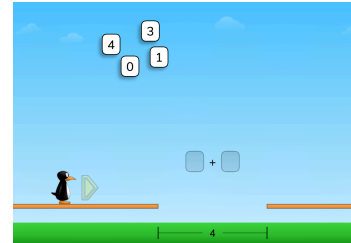




Materials

Whiteboards, dry erase markers
math tools
One Empty Ten Frame

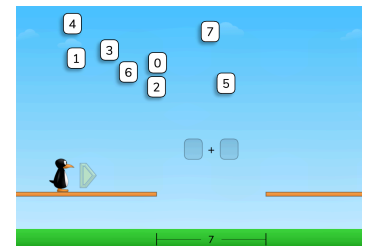
- Give students whiteboards and dry erase markers. Display the first puzzle in Level 1 that does not have JiJi's Helping Hand. Ask students, "What do you notice? How do you think we solve this puzzle?"
- Have students share strategies for solving the puzzle. Try one student's strategy and watch the feedback. Ask students, "How does the feedback affect your thinking? What would you like to try now? How many correct answers do you think there are? Why? "



- Have students record their answers on their whiteboards. Ask students to record their thinking on their whiteboard too (Did they draw a picture? Count fingers? Etc.?) Ask students to solve it using pictures and share their thinking with a partner.
- Select a couple of whiteboards to discuss as a whole group.
- Ask the students what strategies they are using to come up with the answer.
- Make a list of the strategies. Try a couple of the strategies and discuss what the feedback teaches them about their strategy.

Directions

- Repeat with the remaining puzzles in Level 1 and the first two puzzles in Level 2.
- Ask students to describe what is occurring in the puzzles. What are they learning? Do they notice any relationships or patterns? Write the math concepts/words/skills that students discuss.
- Display the last puzzle in Level 2. Ask students to write all of the solutions for the puzzle. Choose one of the solutions and ask students if order matters when you add the two numbers (e.g., Is $2 + 5$ the same as $5 + 2$?). Have students talk with a partner. Share students' thinking.
- Work together to record ALL of the possible combinations to make the target number.
- Choose a different target number. Ask students to repeat this process to find all of the ways to make the target number.



Sample Questions

- Are there other ways to make the target number?
- How do you know your answer is correct?
- What is your strategy for finding an answer?
- Do you notice any patterns?
- Are there more ways to make a bigger number than a smaller number? Why?
- Can you make a model of this puzzle using math tools? Can you draw a picture?

What to look for

How does the student:

- model the problem on their whiteboard using drawings or math tools?
- discuss and chart the math concepts and vocabulary evident in the puzzles?
- represent the puzzle with numbers and symbols? Can they write equations to represent the problem and solution?
- discuss what the numbers in their equation represent in the puzzle?
- represent the numbers in the puzzle with manipulatives and discuss what the manipulatives represent in the puzzle?