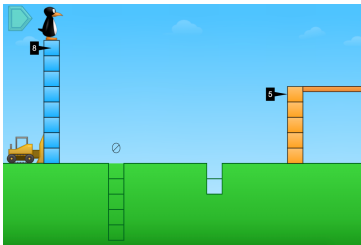


Materials

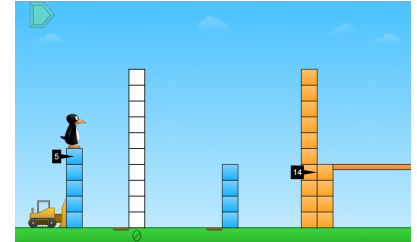
Push Box Game Mat
dry erase marker
math tools such as snap cubes, counters, etc.

Directions

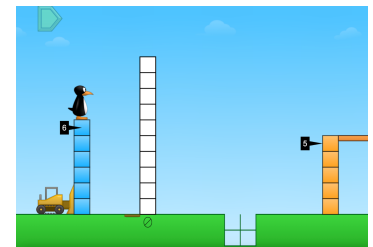
- Display the first puzzle in Level 1. Ask students, “What do you notice? What do you think we need to do to solve this puzzle?”
- Give students a Push Box Game Mat 02, a dry erase marker and math tools. Ask students to represent the puzzle on their game mat.
- Have students turn and talk to a neighbor about their strategy and solution.
- Try a student’s solution and watch the feedback. Ask students, “Was our answer correct? How many steps were taken to solve this puzzle??”
- Display the next puzzle in Level 1. Ask students, “What is known in this puzzle? What is unknown? Do we add to solve this puzzle? Subtract? How do you know?”
- Model how to represent the puzzle with an equation that includes a ? for the unknown (e.g., $4 + 4 + ? = 11$). Ask students to use their game mat and tools to solve for the unknown. Share students’ solutions and strategies.
- Repeat with a few puzzles in Level 1.



- Display the first puzzle in Level 2. Ask students, “How is this puzzle different from the ones we just did? How many steps does it take to solve this puzzle? What operation is happening in this puzzle? How do you know this is a subtraction problem?”
- Model for students how to represent the puzzle with an equation that includes a ? for the unknown (e.g., $9 - 2 - ? = 4$). Ask students to use their game mat and tools to solve for the unknown. Share students’ solutions and strategies.
- Repeat with a few puzzles in Level 2.



- Display the first puzzle in Level 3. Ask students, “How is this puzzle different from the ones we just did? How many steps does it take to solve this puzzle? What operation is happening in this puzzle? How do you know this problem has both addition and subtraction?”
- Ask students to work with a partner to write an equation that represents the puzzle. Share students’ equations. Solve the puzzle together and watch the feedback to prove that the puzzle contains both addition and subtraction.
- Repeat with a few more puzzles in Level 3.


Sample Questions

- What is happening in this puzzle?
- How many steps are needed to solve this puzzle?
- Does this puzzle require addition? Subtraction? Both? How do you know?
- What is your strategy for solving both steps of this puzzle?
- What is known in this puzzle? Unknown?
- How do you know you have solved for the unknown?

What to look for

- How does the student:
- use the Push Box Game Mat to help solve the puzzles?
 - identify the two steps in the puzzle?
 - represent the puzzle with an equation containing an unknown?
 - explain what part of the puzzle each part of the equation represents?
 - explain their strategy for solving the puzzle?
 - explain how they know which operation is required for each step?