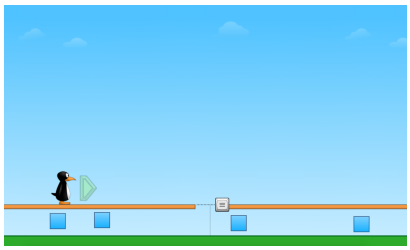
PUZZLE TALK

Second Grade | **Addition and Subtraction Situations** | **How Many More?**

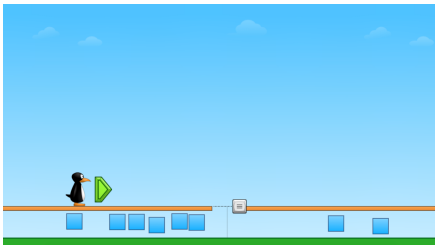
Materials

Paper/pencil or whiteboards and markers
Snap cubes
Color tiles

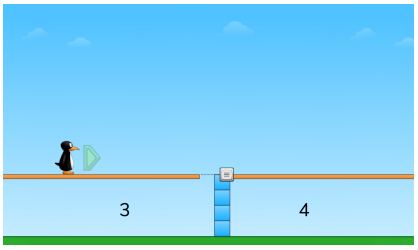
Directions



- Display a puzzle in Level 1 that has fewer blocks on the left side. Ask students, "What do you see?" Turn and talk to your neighbor about what you think we are supposed to do."
- Share and discuss students' answers.
- Click to choose the number of blocks students suggest and watch what happens. Ask students, "Why did JiJi want us to choose that many blocks?" Discuss the difference between the number of blocks on each side.
- Display a puzzle with the same number of blocks on each side and say to students, "What do you notice in this puzzle? Have students Think-Pair-Share their ideas about what we need to do. Say to students, "This time the difference between the two sides is zero. The two sides are equal."



- Display a puzzle that has more blocks on the left side. Say to students, "What do you think JiJi wants us to do now?" "How might we do that?"
- Solve and discuss the remaining puzzles in Level 1. Read each answer by stating the comparison (e.g., "4 is equal to 4" or "2 is 1 less than 3").



- Display the first puzzle in Level 2. Ask students, "How is this puzzle different that the ones we just did?" Discuss with students that now JiJi is showing us the numbers we said when comparing the number of blocks in the last puzzles.
- Have students Think-Pair-Share their strategies and solutions as you complete the remaining puzzles in Level 2.

Sample Questions

- What do we do to clear a path for JiJi in this puzzle?
- How do you know whether to use the "red grabber" or the "blue filler"?
- How do you decide how many blocks to choose?
- What do the numbers represent?
- What does it mean when a number is "greater than" another number? 'Less than"? "Equal to"?
- How could you prove that one number is greater than another? Less than? Equal to?

What to look for

How does the student:

- understand the situation represented in the puzzle?
- explain the situation?
- solve the puzzle? (Do they use guess and check? Rely on manipulatives? Draw it out? Count?)
- use mathematical language to express the relationship? (Do they use vocabulary such as ___ less than, ___more than or equal to?)
- move beyond direct modeling?
- compare the two numbers? (Do they just find the bigger one or compare the first quantity to the second?)