

Puzzle Talk - Kindergarten

Ten Frame (Level 1)

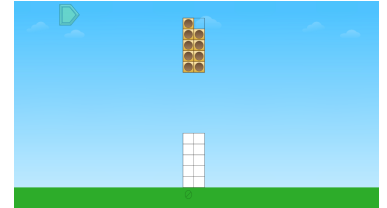


ST Math
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These facilitation suggestions are what a student-led discussion might look like when looking at puzzles in Level 1. Depending on how students respond, it likely would take one session for Level 1.

Description

- **Puzzle Location:** Grade K > Making 10 and Number Pairs > Ten Frame
- **Topic:** Make ten using ten frames.
- **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 a [Ten Frame Math Mat](#), a whiteboard, a dry-erase marker, and counters



[click here for puzzle](#)

Notice and Wonder

- Display the first puzzle from Level 1.
- Ask students: "What do you notice? What do you wonder?"
- Have students turn and talk to a neighbor about what they notice and wonder about the puzzle.

Predict and Justify

- Ask students: "How do you think we solve this puzzle?"
- Have students model and solve the puzzle on their Ten Frame Math Mat. Then have them explain to a neighbor how they solved it.
- Have students share their solutions.

Test and Observe

- Select one of their solutions to try.
- Solve the puzzle and have students describe what happened.
- You can use the animation controls by double-clicking on the screen 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.

Analyze and Learn

- Ask students how what happened compares to what they thought would happen.
- You can use the animation controls to replay and examine what happens in the puzzle.
 - 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.
- Show the next puzzle in Level 1.
- Have students model and solve the puzzle on their Ten Frame Math Mat and then explain to a neighbor how they solved it.
- Have students write the numeral for the number of counters they represented on their Ten Frame Math Mat.
- Talk with students about the ten frame and how it used to organize. Ask students questions such as:
 - "How many would you have if you added one more (two more) counters?"
 - "How many would you have if you took one (two) away?"
 - "How does organizing the counters on the ten frame help you know the number quickly?"
- Have students share their counting strategies.
- Repeat with additional puzzles in Level 1.