Grade 3 / Case Study 2

MATH * SMARTER BALANCED PERFORMANCE TASK

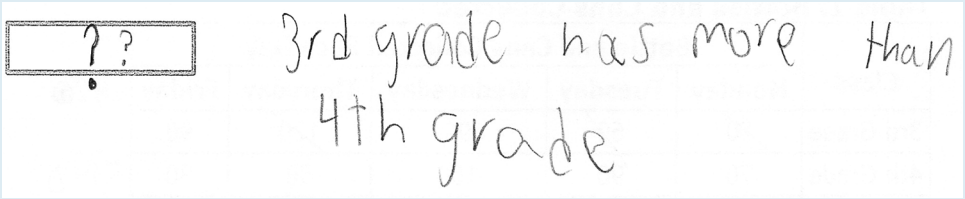
Item 1	Use **Table 1** to help you answer this question. On which days did the 3rd grade class collect more cans and bottles than the other two grades? Select **all** that apply.
Student Response to Item 1	☐ Monday ☐ Tuesday ☐ Wednesday ☒ Thursday ☐ Friday
Analysis of Response to Item 1	The student's response to the first item of the task earns 0 out of 1 possible point. The student correctly selected Thursday as a day that the 3rd grade class collected more bottles and cans than the other grades, but did not also select Friday.

Item 2

Use **Table 1** to help you answer this question.

On Tuesday, how many more bottles and cans did the 4th grade class collect than the 3rd grade class?

Student Response to Item 2



Analysis of Response to Item 2

The student's response to the second item of the task earns 0 out of 1 possible point. The student entered a "?" rather than a numerical value. The response contains some evidence that the student understood the relevant comparison to focus on, but this partial evidence does not indicate a successful approach.

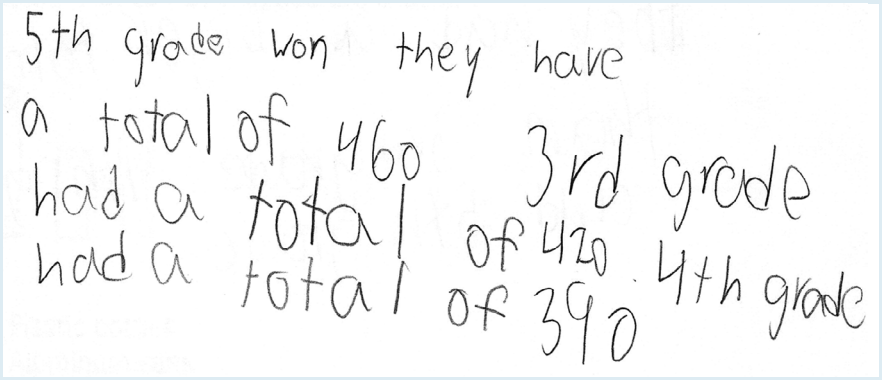
Item 3

You are the contest judge. You need to figure out who won the contest. Did 3rd grade, 4th grade, or 5th grade win the "Go Green" contest?

Use words and numbers to clearly explain:

- which grade won the contest, and
- how you know they collected the most cans and bottles.

Student Response to Item 3



Analysis of Response to Item 3

The student's response to the third item of the task earns 2 out of 2 possible points. Even though the student made two arithmetic errors (460 should be 400; 420 should be 410), s/he made an explicit claim of who won based on the incorrect sums, and supported the claim with evidence — the total amounts for the other two grades.

Item 4

The 2nd grade class got excited about the "Go Green" contest and wanted to join in. They started collecting bottles and cans on Wednesday, even though they missed the first two days.

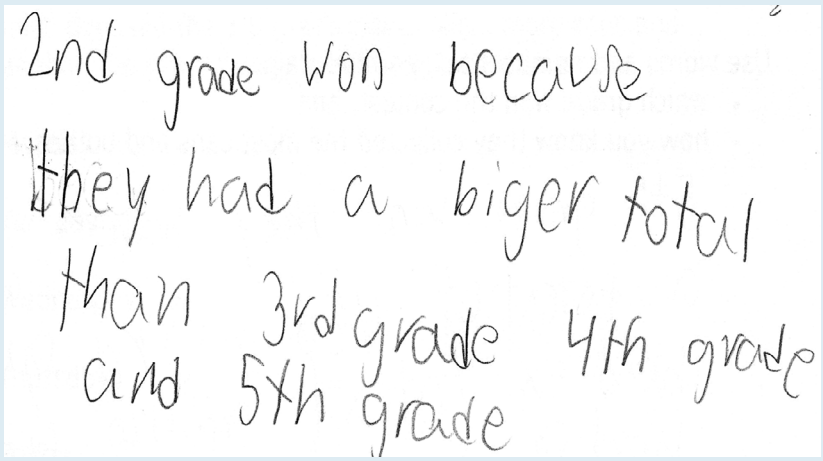
Complete the table to show a way for the 2nd grade class to still win the contest.

Student Response to Item 4

	Wednesday	Thursday	Friday
2nd Grade	206	350	110

Analysis of Response to Item 4

The student's response to the fourth item of the task earns 1 out of 1 possible point.
The student chose three amounts for Grade 2 that together add up to more than the greatest total from item 3.

Item 5	Use your answers from questions 3 and 4 to explain how the 2nd grade class could have won the "Go Green" contest.
Student Response to Item 5	
Analysis of Response to Item 5	The student's response to the final item of the task earns 1 out of 2 possible points. The student provided a correct claim and general justification but did not include specific evidence comparing the total for 2nd grade to the greatest total from item 3.

Overview of Student's Performance

This student's responses show evidence of understanding the context of the problem (Math Practice 2). The student used the data in the table to find totals for each grade level for item 3, made a clear statement of the winner, and drew an appropriate conclusion based on two arithmetic errors. For item 4, the student chose appropriate values and used them in a partial response to item 5.

Some of the student's responses are incomplete or contain incorrect calculations. For item 1, the student chose one correct day, but not "all that apply." For item 2, the student did not directly compare Tuesday values for Grades 3 and 4, but seems to have understood that s/he needed to compare the values based on his/her comment in the workspace, "3rd grade has more than 4th grade." The student's scratch paper shows that s/he tried to add the values in the table horizontally, rather than writing the values for each grade vertically, lining up by place value, and then adding. This resulted in a sum of 420 rather than 410 for 3rd grade, and 460 rather than 400 for 5th grade, with an initial step of "80 + 80 = 260."

Next Steps

This student would benefit from experiences that support development of Math Practice 1, Math Practice 6, and UDL Principle 1 to help with clarifying the syntax and structure of responses. Practice with close reading (precision, comprehension) of a problem would help the student notice guiding language, such as "select all that apply", "On Tuesday", and "use the values from questions 3 and 4." Some evidence of the student's understanding of the requirements of an item is evident in the student's response to item 3, where the claim and evidence are stated completely. However, for item 5, the student provided an accurate claim but used general information ("had a biger total than") instead of specific evidence. Additionally, the student would benefit from support focused on precision in computation, such as writing values vertically and lining them up by place value before adding.