

OPEN AND PARALLEL TASKS FOR GRADE 3

In *Great Questions: Great Ways to Differentiate Mathematics Instruction*, (2009) NCTM, Marion Small proposes big ideas for each strand of mathematics and then presents the strategy of using Open and Parallel tasks related to the same big mathematical ideas as a way to better meet the needs of all students in a classroom.

Grade 3

Open Task:

Jose and Sue found a total of ___ shells. Jose found three more than Sue. How many did Jose find?

Parallel Task:

Option 1:

I have ten markers. Some are red, some are green and some are blue. There are three fewer red markers than blue markers. There are more green markers than red. There are more blue markers than green. How many of each color are there?

Option 2:

I have eleven markers. Some are red and some are blue. There is one less red marker than blue marker. How many of each color are there?

Notes about the Grade 3 tasks:

Open questions can sometimes be created by replacing a number with a blank. At advanced levels, students could write a rule or equation.

Option 1 of the Parallel Tasks targets students who need an advanced challenge. This task requires students to figure out the relationships between three colors of markers. Once students have discovered the solution (two red, three green and five blue), they can be asked to find a solution for a larger total number of markers, such as 19, 20, or 74 markers. Many numbers cannot be used as the total number of markers. Students could also be challenged to list numbers that will not work as the total number of markers.

Option 2 is designed for struggling students. It allows them to focus on basic facts sums for eleven, which they may already know or can easily model with manipulatives. The two quantities are only one away from each other. Many students may use a strategy of dividing into two equal piles and then adding the odd one left over to the blue pile. Once students have discovered the halving strategy, they can be encouraged to find solutions for larger numbers. They will discover that only odd numbers can work for the total number of markers.