Field Trip

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Grade Levels Pre-K-2

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Context

Take advantage of using mathematics as you plan your next field trip. This task is more interesting if you can get the number of people in your class to be a number like 20 or 24 where there is more than one solution.

What This Task Accomplishes

This task shows a student's understanding of number sense, one-to-one correspondence and patterns. It will show which students are comfortable using equations.

What the Student Will Do

Some students will draw pictures of solutions. Others will use student names, desks, etc. for a one-to-one correspondence. Others will rely on previously learned facts.

Time Required for Task

45 minutes

Interdisciplinary Links

You could use this task when studying conservation, by integrating carpooling to save on energy.

Teaching Tips

Include aids, parents, etc. so the class total will be a number where there is more than one solution. Encourage multiple solutions or multiple approaches. Some teachers may want to cut out images of cars and vans and heads (or have little stickers available to represent people). Students can stick the people right to each car and van. Allow students to pick the number of cars, vans, stickers they think they may need.

Suggested Materials

A number of mathematics manipulatives or cut-outs of cars, vans and heads.

Field Trip

Possible Solutions

The solution will depend on the number of people in the class.

Benchmark Descriptors

Novice
The solution does not take into consideration the constraints of the problem. There is no evidence of a strategy or mathematical reasoning.

Apprentice
The student could not completely carry out the mathematical procedure. Although there is some evidence of mathematical reasoning, the student added incorrectly and only has 20 students in their class. They do not discuss the discrepancy between 20 students in the class and the sum of 22.

Practitioner
This student has a broad understanding of the problem. They rely on previously learned facts to arrive at a solution. The student uses effective mathematical reasoning. The mathematical procedures used are appropriate. There is effective mathematical notation.

Expert
This student has multiple strategies. First they use addition and then they connect that strategy to the use of multiplication. There is precise and appropriate mathematical notation.

Another Expert solution would have been to present multiple solutions. I would encourage students to look for more than one way to solve a problem and also to look for more than one correct solution.

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