

Notes/Reflections:

Embodying Mathematics • Problem Solving • Subtraction
Addition •



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What is the Story of the Word Problem?

This lesson will assist students in visualizing and solving situations presented in word problems.

Essential Question: How can we use theatrical techniques to assist with mathematics comprehension?

Process

Side by Side

- Tell the class that there is a deck of cards. On each card is either a math problem or an answer.
- Divide the class into two groups. Pass out problem cards to one of the groups, and answer cards to the other. Tell them they are not allowed to show the card to anyone until they hear, "Go!"
- Tell students to hold their cards out in front of them when they hear, "Go!" Do not talk! See who is holding a matching card. When they find their partner, stand right next to them, side by side.
- Now everyone look around. Has everyone matched a problem with the correct solution?
- Now switch groups. Distribute a different set of problems to the students and repeat the process.

Don't Tell Me, Show Me!

- At the conclusion of Side by Side, combine the student pairs, resulting in groups of 4-5 students.
- Give each group a card with a word problem written on it.
- Create a series of three tableaux to demonstrate understanding of the word problem and its solution. For example:
 - Tim picked 22 pears and Fred picked 27 pears. How many pears were picked in all?
 - The students can act out picking pears, with one of the students counting all of the pears to determine the total.
- Ask each group to act out their word problem for the class. Both the presenting group and class should be able to solve the word problem.

Materials

- Deck of cards with math problems and answers
- Cards with word problems written on them

Classroom Tips

This lesson is meant to be a supplement to the concept being taught. The students should be able to complete the task in their groups. This is a great way to have students actively engaged in the learning.

Assessment

- Teachers should observe students, watching for involvement, engagement, and effort.
- Students should accurately solve mathematical problems.
- Students should accurately reflect the mathematical problem and answer through acting.
- Students should verbalize the problem solving steps used to solve their equations.

Common Core Georgia Performance Standards

MATHEMATICS

GRADE 2

MCC2.OA.1: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

MCC2.OA.2: Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

MCC2.NBT.5: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

GRADE 3

MCC3.OA.8: Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

MCC3.NBT.2: Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Georgia Performance Standards

THEATRE

GRADE 2

TAES2.3: Acting by developing, communicating, and sustaining roles within a variety of situations and environments

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National Standards

THEATRE ARTS

Standard 2: Acting by assuming roles and interacting in improvisations

Standard 5: Researching by finding information to support classroom dramatizations