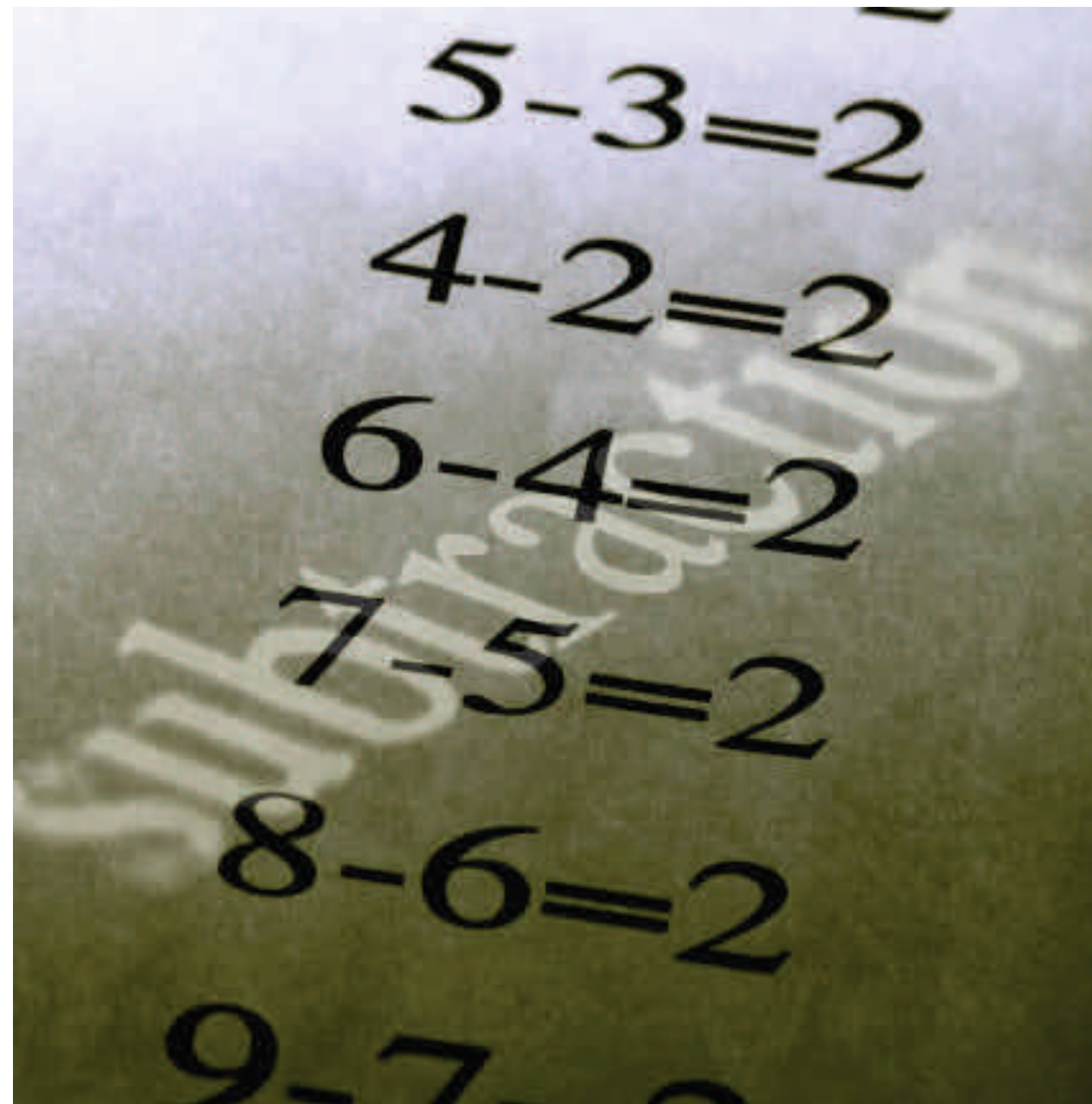


Notes/Reflections:

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Idea Contributed by Mary Gagliardi

Embodying Mathematics • Fact Families • Tableaux  
Addition • Subtraction •



Help Your Students Comprehend Fact Families  
Using Theatre Techniques!

In this lesson we will enable the students to articulate the relationship between numbers in a fact family.

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

**Process**

**Tableau**

- Ask students to make a frozen picture of the following:
  - Three
  - Five
  - Two
  - Tree
  - Bird
  - Butterfly
  - Chair
  - Table

**You Can't Take Me Game Warm Up**

- Divide the students into groups of three.
- Assign each group a room in the house.
- Ask students to make themselves into something in that room.
- The teacher should approach a student and say, "I am going to get rid of this."
- Student says, "You can't take me."
- Teacher should reply, "Well, why not?"
- Student should reply "Because \_\_\_\_\_ (giving some reason that the object is important)."
- Move around the room until all students have participated.

**You Can't Take Me Game**

- Now we will play the same game, but with fact families.
- Give each student a number and each group an addition and equals sign.
- In their groups, ask the students to line themselves up to make an addition equation. Remind student to put the addition and equals sign in the right place for their equation.
  - For example: If a group had the numbers 3, 5 and 8, I would want to see the addition equation  $3 + 5 = 8$ . Now change the numbers to make it look different, but still be true:  $5 + 3 = 8$ .
- Now give each group a subtraction sign.
- Ask the students to make a subtraction equation with the same numbers, but using the subtraction sign.
- Now I want to see your number. When I come to get rid of you, tell me why you are important. Perhaps you can't take me because without me, 5 can't make 8 (if you are a three and the other people in the group are a 5 and a 3).
- Let everyone have a turn. Make sure that each student is given the chance to calculate a solution.

**Materials**

- Sets of fact family numbers (enough numbers for each student)
- Addition, Subtraction, and Equals Signs for each group of 3 students

**Vocabulary**

**Tableau**

a group of models or motionless figures representing a scene from a story or from history

**Assessment**

- Teachers should observe students, watching for involvement, engagement, and effort.
- Students should accurately construct mathematical addition and subtraction equations using fact families.
- Students should accurately demonstrate addition and subtraction within 20, and knowledge of properties of operations.
- Students should verbalize their assigned object or number's importance within their fact families.

**Common Core Georgia Performance Standards**

**MATHEMATICS**

**GRADE 1**

**MCC1.OA.3:** Apply properties of operations as strategies to add and subtract. Examples: If  $8 + 3 = 11$  is known, then  $3 + 8 = 11$  is also known. (Commutative property of addition.) To add  $2 + 6 + 4$ , the second two numbers can be added to make a ten, so  $2 + 6 + 4 = 2 + 10 = 12$ . (Associative property of addition.)

**MCC1.OA.6:** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).

**THEATRE**

**GRADE 1**

**TAES1.3:** Acting by developing, communicating, and sustaining roles within a variety of situations and environments

**TAES1.7:** Integrating various art forms, other content areas, and life experiences, to create theatre

**National Standards**

**THEATRE ARTS**

**Standard 2:** Acting by assuming roles and interacting in improvisations

**Standard 5:** Researching by finding information to support classroom dramatizations