Use movement to help your students solve addition and subtraction problems!

Addition

Subtraction

Problem Solving

Choreography

Notes/Reflections:

Idea Contributed by Kyle Ward
Students will explore ways to solve addition and subtraction problems using their bodies. Students will use movement to represent the numbers 1-10, the addition sign, the subtraction sign, and the equals sign. Students will then solve addition and subtraction problems by using the movements they created.

Essential Question: How can movement and choreography increase comprehension in other subject areas?

Process:
- The teacher will help students create movements for the numbers 1-10, the addition sign, the subtraction sign, and the equals sign.
- After creating the movements, the teacher will review to ensure that all students remember the movements that were created.
- Pair the students in teams.
- Pass out notecards with addition and subtraction problems on the card. Be sure that the addition and subtraction problems only use numbers 1-10 as well as equal numbers 1-10.
- Ask students to solve the problems on their notecard using the movements that the class just created.
- Finally, ask the student teams to create and perform their own math problem using the movements that they learned.

Assessment:
- Students will perform their addition and subtraction problem in front of the class to check for their understanding.

Materials:
- Notecards containing addition and subtraction problems

Vocabulary
- Choreographer: A person who creates dances
- Dance Composition/Choreography: Creating the movements in dances
- Locomotor: Movements that travel through space
- Non-locomotor: Movement that does not travel through space

Classroom Tips
In this activity, be sure to allow students to have working room space and adequate time to practice their movements. Remember to set up parameters for acceptable movement. Always discuss audience behavior/etiquette before performances begin.

Academic Knowledge and Skills
Gwinnett County Public Schools

Mathematics
GRADE 1
B - Operations and Algebraic Thinking
- represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations (CCGPS) (KMA_B2012-13/MCCK.OA.1)
- add and subtract within 10 using objects or drawings to represent the problem (CCGPS) (KMA_B2012-14/MCCK.OA.2)
- find the number that makes 10 when added to the given number, for any number from 1 to 9 (e.g., by using objects or drawings, and record the answer with a drawing or equation) (CCGPS) (KMA_B2012-16/MCCK.OA.4)
- add and subtract within 5 fluently (CCGPS) (KMA_B2012-17/MCCK.OA.5)

Physical Education
GRADE 1
B - Motor Skills and Movement Patterns
- demonstrate progress of locomotor and non-locomotor movements with or without equipment (GPS) (1PE_B2009-2)
C - Movement Concepts and Principles
- identify personal and general space (GPS) (1PE_C2009-9)
- travel in different directions and pathways (GPS) (1PE_C2009-10)
D - Personal and Social Behavior
- safely demonstrate acceptable behaviors in a physical setting with reinforcement (GPS) (1PE_D2009-12)

Common Core Georgia Performance Standards
Mathematics
GRADE 1
MCCK.OA.1: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
MCCK.OA.2: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
MCCK.OA.4: For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
MCCK.OA.5: Fluently add and subtract within 5.

National Standards
Dance
Standard 1: Identifying and demonstrating movement elements and skills in performing dance
Standard 2: Understanding choreographic principles, processes, and structures
Standard 4: Applying and demonstrating critical and creative thinking skills in dance
Standard 7: Making connections between dance and other disciplines