YOU CAN'T TAKE ME
Grade Band: K-1
Content Focus: Theatre & Math

LEARNING DESCRIPTION

In this lesson, students will use their bodies to represent numbers in the game, "You Can't Take Me", and will be able to articulate the relationship between numbers in a fact family.

LEARNING TARGETS

Essential Questions	"I Can" Statements
How can we use theatrical techniques to help us understand fact families?	I can use my body to create mathematical addition and subtraction equations using fact families. I can recognize the inverse relationship between subtraction and addition and use this inverse relationship to solve problems.

We bring learning to life.

	I can explain the relationship between numbers in a fact family using addition and subtraction.

GEORGIA STANDARDS

Curriculum Standards	Arts Standards
Grade 1: 1.NR.2.1 Use a variety of strategies to solve addition and subtraction problems within 20. 1.NR.2.3 Recognize the inverse relationship between subtraction and addition within 20 and use this inverse relationship to solve authentic problems. 1.NR.2.5 Use the meaning of the equal sign to determine whether equations involving addition and subtraction are true or false.	**Grade 1:** TA1.PR.1 Act by communicating and sustaining roles in formal and informal environments.

SOUTH CAROLINA STANDARDS

Curriculum Standards	Arts Standards
Grade 1: 1.ATO.1 Solve real-world/story problems using addition (as a joining action and as a part-part-whole action) and subtraction (as a separation action, finding parts of the whole, and as a comparison) through 20 with unknowns in all positions. 1.ATO.2 Solve real-world/story problems that include three whole number addends whose sum is less than or equal to 20. 1.ATO.4 Understand subtraction as an unknown addend problem. 1.ATO.7 Understand the meaning of the equal sign as a relationship between two quantities (sameness) and determine if equations involving addition and subtraction are true.	**Anchor Standard 3:** I can act in improvised scenes and written scripts. **Anchor Standard 8:** I can relate theatre to other content areas, arts disciplines, and careers.

KEY VOCABULARY

Content Vocabulary	Arts Vocabulary

- Fact family - A group of related mathematical facts or equations involving the same set of numbers. In addition and subtraction fact families, the numbers can be arranged to show how they are interconnected through these operations.

- Addition - A basic mathematical operation that involves combining two or more numbers to get a total or sum

- Subtraction - A basic mathematical operation that involves taking one number away from another

- Body – An actor's tool, which we shape and change to portray the way a character looks, walks, or moves

- Tableau - A "living picture" in which actors pose and freeze in the manner of a picture or photograph

MATERIALS

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

INSTRUCTIONAL DESIGN

Opening/Activating Strategy

- Start with a general physical warm-up to get the students' bodies ready. Use exercises such as:
  - **Stretching:** Stretch all major muscle groups.
  - **Shaking Out Limbs:** Shake out arms, legs, and the whole body to release tension.
  - **Energy Passes:** Stand in a circle and pass a clap or a simple motion around to build group focus and energy.
- Begin the lesson with a tableau warm-up. Tell students that when you say a word, they should try to make that word using their bodies; then, they should freeze in that pose.
  - Ask students to make a frozen picture of the following:
    - Tree
    - Bird
    - Butterfly
    - Chair
    - Table
- Tell students that in this lesson, they will be using their bodies just like in the activator.

Work Session

You Can't Take Me Game Warm Up
- Tell students to imagine that the classroom has become a house.
  - Ask students to brainstorm the types of rooms there are in a house–bedrooms, kitchen, living room, bathroom, etc.

- Divide students into groups of three.
- Assign each group a room in the house. Ask students to think of different things they would see in their assigned room. Ask a few students to share.
- Next, tell students to make themselves into something in their assigned room.
- Once all students have created something for their room, the teacher should approach a student and say, "I am going to get rid of this". The student will respond with, "You can't take me." Teacher should reply, "Why not?". The 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
- Tell students that they will now play the same game, but with fact families.
  - Review what "+, –, and =" mean mathematically.
- Give each group a "+" and "=" sign, and give each student in the group a number that is part of the same fact family.
- In their groups, ask the students to line themselves up to make an addition equation.
- Remind students to put the addition and equals sign in the correct place for their equation.
  - Example: If a group had the numbers 3, 5 and 8, they should create the equation 3 + 5 = 8.
- Now, tell students to change the numbers to make the equation look different, but still be true: 5 + 3 = 8.
- Tell students that when you come around the room to get rid of their number, they should tell you why they are important. For example, "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).
- Next, give each group a "–" sign.
- Ask students to make a subtraction equation with the same numbers that they used in their addition equation.
- Tell students that when you come around the room to get rid of their number, they should tell you why they are important.
- Let everyone have a turn. Make sure that each student is given the chance to calculate a solution and explain their reasoning.

Closing/Reflection

- Write three numbers on the board that are all part of the same fact family.
- Ask students to arrange the numbers so that they make an addition equation and a subtraction equation. Then ask students to rearrange the numbers in both equations so that they look different but are still true.
- Students will submit this for assessment.
- Students can work individually or in their groups.

ASSESSMENTS

Formative

Teachers will assess students' understanding of the content throughout the lesson by observing students' participation in the activator, collaboration and participation in the "You Can't Take Me" warm-up and game, and written equations in the closing activity.

Summative

CHECKLIST
- Students can use their bodies to create mathematical addition and subtraction equations using fact families.
- Students can recognize the inverse relationship between subtraction and addition and use this inverse relationship to solve problems.
- Students can explain the relationship between numbers in a fact family using addition and subtraction.

DIFFERENTIATION

Acceleration:
- Give students two out of three of the numbers in a fact family and have students determine the missing number.
- Have students create their own fact family and equations.

Remediation:
- Scaffold the lesson by modeling how to create an addition and subtraction equation and reasoning why each number is necessary in "You Can't Take Me" before assigning fact families to groups.
- Focus on addition in one session and subtraction in a separate session.

ADDITIONAL RESOURCES

NA

This integrated lesson provides differentiated ideas and activities for educators that are aligned to a sampling of standards. Standards referenced at the time of publishing may differ based on each state's adoption of new standards.

Ideas contributed by: Mary Gagliardi. Updated by Katy Betts.

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