



# artsNOW

Integrated learning solutions

## WHAT'S THE STORY OF THE WORD PROBLEM?

Grade Band: 2-3

Content Focus: Theatre & Math



### LEARNING DESCRIPTION

In this lesson, students will visualize and solve word problems by embodying the elements of the equation and acting out the scenario.

### LEARNING TARGETS

Essential Questions	"I Can" Statements
How can we use theatrical techniques to assist with mathematics comprehension?	<p>I can solve a given word problem.</p> <p>I can determine what type of equation is being acted out.</p> <p>I can use my body and voice to accurately act out a given word problem.</p>

### GEORGIA STANDARDS



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Curriculum Standards	Arts Standards
<p><i>*This lesson can be taught with any math standard that can be assessed using a word problem.</i></p>	<p><b>Grade 2:</b>            TA2.CR.1 Organize, design, and refine theatrical work.            TA2.CR.2 Develop scripts through theatrical techniques.            TA2.PR.1 Act by communicating and sustaining roles in formal and informal environments.</p> <p><b>Grade 3:</b>            TA3.CR.1 Organize, design, and refine theatrical work.            TA3.CR.2 Develop scripts through theatrical techniques.            TA3.PR.1 Act by communicating and sustaining roles in formal and informal environments.</p>

### SOUTH CAROLINA STANDARDS

Curriculum Standards	Arts Standards
<p><i>*This lesson can be taught with any math standard that can be assessed using a word problem.</i></p>	<p><b>Anchor Standard 1:</b> I can create scenes and write scripts using story elements and structure.</p> <p><b>Anchor Standard 3:</b> I can act in improvised scenes and written scripts.</p> <p><b>Anchor Standard 8:</b> I can relate theatre to other content areas, arts disciplines, and careers.</p>

### KEY VOCABULARY

Content Vocabulary	Arts Vocabulary
<p><i>*This lesson can be taught with any math standard that can be assessed using a word problem. Content vocabulary will differ depending on which standard is being taught.</i></p>	<ul style="list-style-type: none"> <li>● <u>Theater</u> - Dramatic literature or its performance; drama</li> <li>● <u>Character</u> - A person, an animal or other figure assuming human qualities, in a story</li> <li>● <u>Voice</u> – An actor’s tool, which we shape and change to portray the way a character speaks or sounds</li> </ul>



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- **Body** – An actor’s tool, which we shape and change to portray the way a character looks, walks, or moves
- **Scene** – The dialogue and action between characters in one place for one continuous period of time

## MATERIALS

- Cards with math problems and answers written on them
- Cards with word problems written on them

## INSTRUCTIONAL DESIGN

### Opening/Activating Strategy

*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.*

- 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.
- Explain that students will explore different characters by changing their walk and physicality. Encourage them to think about how their character’s age, status, mood, and personality influence their movement.
  - Use simple prompts to get students thinking about different ways to embody a character. Call out various types of characters and ask students to walk around the space embodying those characters. Examples include:
    - A friendly dog
    - A suspicious cat
    - A sneaky mouse
    - A graceful dancer
    - An exhausted construction worker
- Have students return to their seats.

### Work Session

#### Side by Side

- Show the class a stack of cards. On each card is either a math problem or solution.
- Divide the class into two groups. Pass out problem cards to one of the groups and answer cards to the other.



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- Tell students that the goal of the game is to find the person with the corresponding card (if they have the problem, they are searching for the solution).
- Students 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!”. They cannot talk to each other. Students’ task is to find the person with the corresponding card.
- When they find their partner, students should stand side by side.
- Once all students have found their match, direct students to look around the room to check that each problem is matched with the correct solution.
- Switch groups and repeat the process with a different set of problems and solutions.

### Don’t Tell Me, Show Me!

- At the conclusion of Side by Side, divide students into groups of four or five.
- Give each group a card with a word problem written on it.
- Tell students that they will create a short scene 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 would act out picking pears, with one of the students counting all of the pears to determine the total.
- Provide the following criteria for students:
  - Students should think back to the activator and consider how they will use their bodies (and voices) to create the character in the word problem.
  - Every student must play an active role in the scene (this could be as a character, part of the setting, or the director).
  - The scene must show both the problem and the solution.
- Allow students time to solve their problem and decide how they will show their problem through a scene.
- Circulate to work with students and assess understanding.

### Closing/Reflection

- Each group will act out their scene for the class. Discuss appropriate audience participation and etiquette prior to performances.
- The audience should be able to determine what is occurring in the word problem (addition, subtraction, multiplication, etc.).
- After each performance, debrief with the class asking what the actors showed and how they showed it. Then, the performing group should share their word problem with the audience.

## ASSESSMENTS

### Formative

Teachers will assess students’ understanding of the content throughout the lesson by observing students’ participation in the activator, ability to find the problem/solution in Side by Side, and collaboration with group members to solve and act out their given word problem.

### Summative



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## CHECKLIST

- Students can solve a given word problem.
- Students can determine what type of equation is being acted out.
- Students can use their bodies and voices to accurately act out a given word problem.

## DIFFERENTIATION

**Acceleration:** Challenge students to write their own word problem to act out for the class.

**Remediation:**

- Scaffold the lesson by asking several student volunteers to assist the teacher in acting out a sample word problem for the class before having students solve and act out their word problems in their groups.
- Help students identify the components of the equation in the word problem by breaking the word problem down as a class and translating it into a standard equation.

## 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.*

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