



# ARTS + ACADEMIC EXTENSIONS

GRADES 1-2: MATH/THEATER

## Word Problem Detectives

In this episode, students will consider the character traits of good detectives. They will use improv to put their detecting traits into action and find clues that will help them decide if word problems are about addition or subtraction. Kids at home can help crack the case!

**CONNECTED OBJECTIVE:** Students will use improv to explore the character traits of a good detective and use them to decode word problems.

**MATERIALS NEEDED DURING EPISODE:** Paper and pencil.



### Standards:

**CCLS - Math: 2.MD.10**

Represent and interpret data.



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## TH:Cr3.1.2

b. Use and adapt sounds and movements in a guided drama experience (e.g., process drama, story drama, creative drama).

## ARTS EXTENSIONS:

**Operations Movement** : Assign arm positions to math operations. Make a plus sign with your arms in a 't', minus sign with one arm and equal sign with both arms across the chest with your elbows bent. Practice changing arm positions using "add, subtract and equal". Once students are ready, add more operations words from the word bank on the video (more, less, in all etc), students should change arm positions to match the operation word.

**Storyboard Word Problems:** Use a blank story sequence board (Beginning, middle and end) to create a word problem.

For example:

First Square - John had 10 pencils

Second Square - Tisha gave John 2 more pencils

Third Square- John now has 12 pencils

Have students draw three large squares or fold a piece of paper in thirds. Instruct them to write a word problem story with a beginning, middle and end. Ask them to circle the clue words.

### 0-10 Warm Up (can also use 10-100 by 10s):

- Everyone moves to the floor if possible and starts seated as small as possible (think almost curled up). If it is not possible for students to leave their seats, they can try to get as small as they can in their chairs. We will count 1 to 10, all together, moving up, with increasing energy levels. 1 is hardly audible, 10 is as loud as possible, everyone standing, or sitting, straight, hands reaching up.
- It is important to watch each other, to ensure everyone is at the same energy level. Also make sure that the increase in energy is gradual.
- You can use variations like 10 more, 5 more. Exercise is meant to conceptualize numbers and adding/subtracting. (Adding numbers adds energy!)

## ACADEMIC EXTENSIONS:

### Math Board Game

- After watching the episode with the class, students can create a math board game that uses basic addition, subtraction and word problems. The students can design a game board, game pieces and word problems. The addition and subtraction problems will be



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used to move your game piece across the board except for when you land on the math detective space. Once you land on the math detective space you have to answer a word problem to move forward.

## Student Created Anchor Chart

- After watching the episode with the class and reviewing the clue words listed on the chart, the students will create their own anchor chart. Have the students work in breakout rooms in groups of 2-3. While in groups they can create their own chart of clue words which help them know what to do when they are working on word problems.

## Math Detectives

- After watching the episode with the class and reviewing the steps to solve a word problem, the students will work in a small group to solve a mystery. The teacher will assign 3-4 students to a breakout room with a word problem to solve. In their “detective notebook” the students will have to identify:
  - what information in the word problem is not needed to solve the problem
  - what is the question is asking
  - what are the clue words
  - the solution