

# Structure of Equality (SoE) Teaching Outline

## Key points to note during discussion:

- A Structure of Equality is a math model.
- We use them to represent the math main idea, which helps us understand the story.
- All structures include labels and values and are representations of equality.

## Discuss the story by asking the following questions:

- Who are the characters?
- What's the action (verb) in the story? (There may not be an obvious action. Example: She **has** three apples.)
- Where might the story take place (setting)?
- What's the problem?
- What is the main idea of the story? (Ex. PET: We are putting parts together to equal a total.)

## How does the SoE model the story?

After the model is drawn, point to the parts of the SoE that represent the different parts of the story and ask the following questions.

- **PET:** What do the part bars represent in the story? What does the total bar represent?
- **Compare:** What does the longer bar represent? What does the shorter bar represent? Where is the difference, the "more" or "less" represented?
- **Repeated Equal Groups (REG):** What does this column (apples) /row (bushels) represent? What does this single item in this array represent? (1 apple in 1 bushel)
- Complete your SoE by writing the labels and values.
- Turn and Talk: Retell the math main idea of your story, using your structure.

## Close the lesson

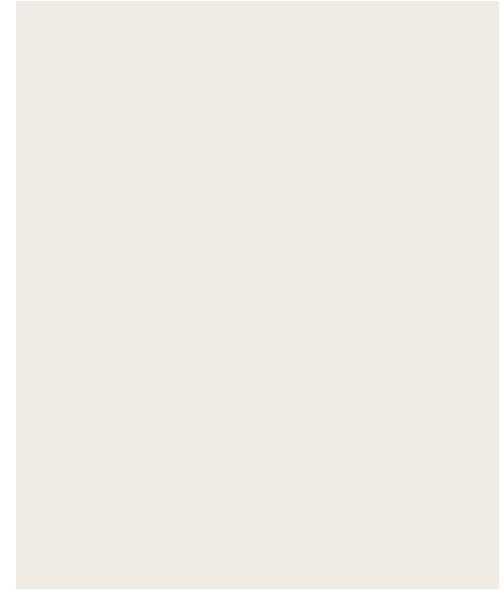
Ask the students to make an "I notice" statement about the SoE.

## Teacher Notes:

- When introducing a new SoE, do not include numbers in the story. Doing this helps the students focus on the Structure of the story, rather than jumping ahead to solve.
- Introducing grade-level specific math stories using numbers under 10 alleviates anxiety for students. Begin with smaller values until they understand the structure of the story, then replace those with the actual values given.
- As the students learn different structures, allow for mixed practice.
- After the students have demonstrated a solid understanding of the SoE, you may want to repeat the above lesson in a "backwards" format, giving them the structure and then asking the students to build their own story around the given structure.
- When discussing the context of the story, take time to discuss unknown vocabulary if needed.

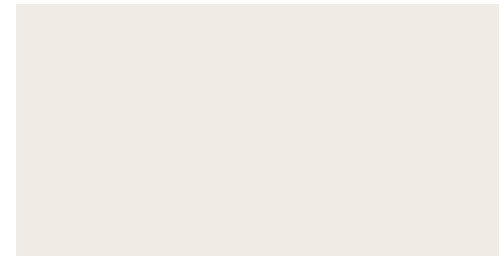
## MATH STORY

Ask the students to read the math story in their head two times. (Read chorally with group to support emerging readers.)



## MATH MAIN IDEA

Include values, units, and unit descriptors.



## STRUCTURE

