

# How To Introduce a Repeated Equal Groups Structure of Equality

**OPTIONAL MATERIALS:** DRY ERASE SENTENCE STRIPS, DRY ERASE MARKERS, SNAP CUBES

1. Display a number story that describes composing equal groups to form a total, with the question removed. If the story is written on chart paper, cover the values with a sticky note. If the story is electronically displayed, remove values.
2. Ask students to read the story in their brain two times **OR** read story aloud to the class two times.
3. Ask the following questions:
  - Does the story have a main character? If yes, who/what is it?
  - What's the setting of the story?
  - Does the story have an action or verb? What is it?
  - What is the thing or item in the story that being composed?
  - What is the math main idea? (The story describes composing equal groups to form a total.)
4. Say, **"We can map out this story using a graphic organizer called a Repeated Equal Groups (REG) Structure of Equality."**
5. Draw the vertical and horizontal lines of the array and then write the label with a blank in front of it. Say, **"This vertical line represents the [insert label]. This horizontal line represents the [insert label]."** Write the labels on the array.
6. Reveal the values and draw the appropriate number of circles to represent the items in the first group. Say, **"These circles represent the first group of [insert label]."** When first introducing REG, keep values below 10.
7. Say, **"Structures of Equality have three important elements to them."**
  1. *"They have values, which are represented by these numbers."* Point to the numbers.
  2. *"They have labels, which are [insert label] in this story."* Point to the labels.
  3. *"They represent equality or the relationship occurring in the story. The equality is in these repeated equal groups."*
8. Say, **"Structures of Equality help us understand what the number story is asking us to do. When you map out a number story using a Structure of Equality, I can see what your brain is doing."**
9. Remove the number story and say, **"Who can retell the number story using the Structure of Equality to help them?"**
10. Repeat daily without inserting numbers or solving until the students can draw a Repeated Equal Groups Structure of Equality independently.

## EXAMPLE STRUCTURE 1

**4 bags of oranges**



## EXAMPLE STRUCTURE 2



## USING SNAP CUBES

*\*Number stories can also be modeled using snap cubes. If you choose this option, model with 4 sets of 2 cubes snapped together.*