

## Supplies

Different sized containers, such as plastic cups, margarine tubs, shampoo bottles, measuring cups, and measuring spoons; items that can be poured from one container into another, such as beans, rice, macaroni, or sand; 3 place cards with the words “MORE,” “LESS,” and “SAME.”

## The Activity

The student fills containers with rice (or beans, etc.) and will compare the containers to determine which has more or less. The student can then check by pouring the contents into a measuring cup or by using a measuring spoon to remove the contents while counting the number of scoops. The student can also pour contents from one container into another and draw some conclusions about “too much,” “too little,” or “just enough.”

## Variations

- The student can estimate before measuring which container will hold more/less/same and then check by using a measuring tool to fill the containers.

## Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding and talking about them. Then explain what you will do. Formulate a plan with the student.

**Questions:** What is the plan? What do you need to do first? Next? What do you think we can do with these containers.

## Act:

The student will fill the containers and compare them while making predictions about same, more, or less.

**Questions:** Which one do you think is the largest? The smallest? What makes you say that? What can you do to find out? How come this tall container and this flat one held the same amount of rice?

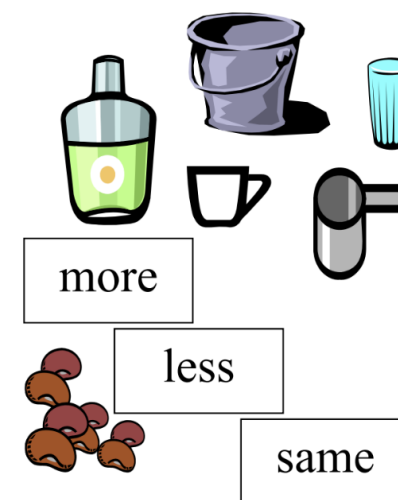
## Reflect:

During and after the activity, reflect on what the student is doing/has done.

**Questions:** What did you do? What did you find out about the objects you measured? If something is shorter than something else, can it at the same time be taller than something else? How come?

## Math Observation Checklist:

This activity will give insight into the student’s understanding of size, conservation, systematic exploration, attending to more than one piece of information, attending to relevant information, and inhibition of impulsivity.



## Supplies

Different sized containers, such as plastic cups, margarine tubs, shampoo bottles, measuring cups, and measuring spoons; items that can be poured from one container into another, such as beans, rice, macaroni, or sand.

## The Activity

The student fills containers with rice, beans, or sand with a measuring spoon or measuring cup and records the number or spoonfuls or cupfuls on a sheet of paper.

## Variations

- The student can estimate how many spoons or cups will be needed to fill the container and compare the estimate with the actual number.
- The student can use interlocking cubes to tally the number of cups or spoons. Each time a cupful is added, a cube is added to the tower of cubes. The towers can then be compared and ordered according to length.
- The student can make a bar graph<sup>1</sup> for the results.

### Footnote

<sup>1</sup> A bar graph is a graphic means of comparing the amount of something by using rectangles with lengths proportional to the amount of the groups or categories being compared. The do2learn.com website has graph paper you may download for this exercise.

## Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding, and talking about them. Then explain what you will do. Formulate a plan with the student.

**Questions:** What is the plan? What do you need to do first? Next? What do you think we can do with these containers.

## Act:

The student will fill the containers with the measuring spoon or measuring cup and keep a tally of the number.

**Questions:** Which one do you think is the largest or smallest? What makes you say that? What can you do to find out? What will go faster, the cup or the spoon? What would be the best measuring tool for this (small, medium, large) container?

## Reflect:

During and after the activity reflect on what the student is doing/has done.

**Questions:** What did you do? What did you find out about these containers? What happened when you used the spoon to fill this large container? And when you used the measuring cup? How come this tall container and this flat one held the same amount of rice?

## Math Observation Checklist:

This activity will give insight into the student's understanding of size, conservation, systematic exploration, attending to more than one piece of information, attending to relevant information, and inhibition of impulsivity.

