

**Title:** Introduction to capacity  
**Grade level:** Kindergarten  
**Time Period:** Approximately 45 minutes

**Purpose:** To introduce capacity and the comparative language for capacity.

**Outcomes:**

Students will be expected to demonstrate an awareness of capacity through manipulation of liquids and other materials, using more/less.

Students will be expected to demonstrate confidence in ability to reason and justify thinking.

Students will be expected to speak in turn and stay on topic.

Students will be expected to follow simple directions

**Lesson:** More and Less

**Materials:**

- ❖ Several jars or clear plastic containers which are different in shape and size.
- ❖ Filling materials such as water, rice, sand...
- ❖ Large containers to place materials (rice) in for each table.

**Introduction:**

Tell children what capacity is. It is the maximum amount that an object can hold. For example, the guessing jar was filled to capacity with different objects. It means that the object is full and you cannot fit anything else in it.

**Motivation:**

Tell students that we are going to be using rice to measure capacity. (Anything that makes a mess will probably be motivating!!)

**Modeling:**

Using many different size containers, hold up two containers at a time and ask students which container they think will hold more. After getting some predictions from the class, test their prediction by filling one container with rice and pour it out into the other container. It is useful to name the containers to reduce confusion of the two containers. I will call the container that the class thinks hold more -container A and the container that they think holds less -container B. If container B overflows when container A is poured into it, this means that container A holds more. If there is still room in container B after container A is poured in, then container B holds more. Repeat this process using other different size containers getting students to make predictions, tell which containers hold more and less and why. Ensure the students explain their predictions.

When students have grasped the concept set the seat work. The seat work will be the same as was modeled. To ensure everyone understands what they have to do, ask several students to explain the instructions that were given.

**Student Activity:**

Step 1: Give each table two different size containers to start.

Step 2: Each table will work together to predict which container will hold the most

Step 3: When students finish with the first two containers everyone at their table will raise their hand, explain what they did and will be instructed to go get two more different containers to test(One student from each table will go get the containers each time). This time they will predict which container will hold less.

**Closing:**

Step 4: Once students have tested several different sets of containers, call them down to the floor to have a class discussion about what they found. Hold up a set of containers that one group tested and get them to tell the class which container they predicted holds more and which holds less and their results after testing. They will also tell how they found their results. Hold up a set of containers done by each group to involve every group in the class discussion.

**Assessment:**

Assessment will be done using anecdotal notes and observation.

**Extension/ On-going Activity:**

There is a rice table set up in the classroom containing containers of different sizes where students are encouraged to experiment with capacity during recess time or other free time/center time they have. Once the students are comfortable with and understand capacity, set up different centers in the classroom for students to experiment independently using different materials such as, water, rice, macaroni, etc. Children were also encouraged to experiment with different containers and materials at home as well. For example, they could use water while in the bath tub to measure capacity.