

The purpose of the activity is to help your child to:

- Order containers by capacity.
- Use a unit to measure the capacity of a container.

Here is what to do:

Show your child the picture of three containers. Ask them about how they know how many cups each container will hold. Children of this age often have trouble looking at all three dimensions (length, height, depth) simultaneously in making their decision. Expect answers like, "The tall container looks like it is two cups high." Respond with questions like, "So you only need to look at how high the container is. Is that right? That will mean the takeaway container will only hold half a cup. Is that right?"

You may need to provide your child with a benchmark for estimation, especially if their answers are 'way off'. Just take a similar container from your house and pour one cup of water into it. That will help them estimate with the photograph containers.

After finding suitable containers watch to see how your child measures the capacity of each container. Do they fill each cupful to the top or do the units vary? Consistent size is a feature of measurement unit. What do they do with fractions of a cupful? Partitioning (cutting up) units, for more accuracy, is an important characteristic of measurement.

Points to note:

Capacity is the volume of a liquid or gas that a container holds. The standard (conventional) units for capacity include litres and millilitres (thousandths of a litre). This task requires them to use a unit of measurement (cupfuls). This requires them to trust in the size of unit. Look for understandings of:

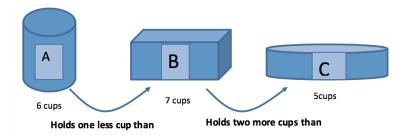
- 1. Units (cupfuls) must all be the same size.
- 2. Units fit together with no gaps or overlaps, i.e. no water is lost through shrinking or expanding during pouring.
- 3. Units can be added and subtracted just like other things.

Notes for parents cont... Activity next page.

Capacity is three-dimensional and research indicates it does not develop for young children without lots of practical experience. That is why water and sand play is essential in pre-school learning. Appearance of containers can be difficult to process. Curvy containers often look like they hold more than straight containers. Children often opt for the tallest container in deciding which container holds more. The experience of pouring from one full container into another helps them conserve capacity, i.e. understand that the amount of water does not change as it is poured from one container to another.

The logic involved in comparisons of containers is tricky. You child needs to understand that they can trust the unit to make comparisons and work out differences between containers without pouring again.

The logic becomes more complex when three containers are used. Look at this scenario. Understanding that A holds one more cupful than C without needing to pour between the two containers is called transitive reasoning, an important development in size comparison.



Just by looking, can you tell how many cups of water it will take to fill each container?

How do you know?







Find three different containers from around your house. Make sure they are plastic and look like they hold about the same amount of water.

How many small cups of water will each container hold?

How many more cups of water does the large container hold compared to the smallest?

