

Better Mathematics Through Literacy
Spring Quarter Follow-up Session
Measurement Station II – Capacity Line Up

Materials Needed:

- Five *unmarked and unlabeled* bottles or plastic containers (a good mix of shapes and sizes will work best)
- Bucket of Water (or sand)
- Post-it notes
- Measurement cups and measurement spoons
- Estimation and Measurement Sheet (see below)

Line up the five bottles or containers at the station in no particular order. Use the post-it notes to label each bottle with a capital letter (Bottle A, Bottle B, ...)

The first step in the task is to arrange the five containers in a row based on how much liquid (or sand) you estimate the container will hold. Place the containers from the smallest capacity container on the left to the largest capacity on the right. Discuss with the members of your group why you think some containers will hold more than others. (*this is why a good mix of containers is key to this activity*)

Once your group agrees on the arrangement of the containers from smallest capacity to largest capacity, use the “Capacity Line-Up Organizer” to estimate how many cups of liquid (or sand) you think each container will hold. Give your best estimate for each container before you actually begin measuring!

Once each group member has given their individual estimate for each container, discuss your estimations with your group. Discuss why you feel each container will hold the number of cups of liquid (or sand) that you have estimated.

Then, carefully use the measuring cups and the bucket of water (or sand) that you have been provided to carefully measure the capacity of each container or bottle. Feel free to use the fraction of a cup measuring tools as well (another connection to fractions in the real-world!). Record your findings on the “Capacity Line-Up Organizer” in the spaces provided.

Once you have found the capacity of each container, compare your actual measurements to the estimates you made earlier. Discuss your estimations versus the actual measurement with the members of your group. What do you notice? Were you consistently under in your estimations? Were you consistently over? Why?

Extension Activity: Connect this Capacity activity to metric measurement by providing students with milliliter, centiliter, and liter measuring tools! This brings up an interesting compare/contrast between our capacity measure and the rest of the world!

Capacity Line-Up Organizer

Bottles (or containers) listed in order from smallest capacity to largest capacity	"I estimate this bottle (or container) will hold _____" <i>(remember to state what units you are using)</i>	"When we measured, we found that this container actually holds _____" <i>(remember to state what units you are using)</i>	The difference between our capacity measurement and the actual capacity

Use the space below to write three sentences to summarize what you learned about capacity in this station:
