Capacity - Measuring

Your child will be learning about capacity (the measure of the amount of liquid/sand/rice, etc. that different containers can hold) over the coming days. Your child needs to know the language of capacity – container, most, least, more/less than, about, full, estimate, measure, litre, same amount, holds, half/quarter-litre, jug, glass, carton, bowl, pot, lunchbox, vegetable soup, olive oil, teapot, cup, egg cup, cartons, smoothie, ladle, tomato sauce, shampoo, apple juice, etc.

Selection of containers

Gather a selection of containers that are commonly used in the home, for example, spoon, egg cup, glass, cup, bowl, mug, milk/juice carton, bottle, yoghurt carton, saucepan, pot, jug, bucket, lunchbox, etc. Ask your child to name other containers that hold water/liquid, for example, sink, paddling pool, bath, swimming pool, barrel, plastic cup, etc. Ask your child to arrange the containers from that which s/he think holds the least to that which s/he thinks holds the most. Only use five/six containers at any one time. Encourage lots of discussion with your child. Once your child's estimate is complete, get him/her to check it. Begin with the container that your child thinks holds the least. Fill it with water/liquid/sand/ marbles/rice/pasta shells, etc. Pour its contents into the container that comes next in the row. If there is space left in the second container, s/he has proved that it holds more than the first container. Continue testing each of the containers in the same manner. If there is any disagreement/debate with your child as to which container holds more/less, put it to the test! Fill the two containers in question with water/sand/pasta shells and empty each into a larger container. See which filling takes up more space in the new container.

Get measuring!

You will need two containers of considerably different capacities, for example, a spoon and a cup, as well as a basin of water/sand/pasta shells/rice, etc. Ask your child to estimate how many spoonfuls of water will fill the cup. Measure how many spoonfuls of water fill the cup. Encourage your child to compare his/her estimate with the result. Invite your child to find the difference between the answer and the estimate by subtraction. Repeat this activity with different pairs of containers, for example, an egg cup and bowl/a bowl and saucepan/a cup and teapot/a teapot and bucket/a glass and basin/a cup and milk carton.

1-litre containers

Gather a selection of 1-litre containers to show your child that litre units come in a variety of shapes, for example, milk cartons, milk bottles, ice-cream tubs, bottles of soft drinks, water bottles, juice cartons, paint tubs, bottles of cooking oil. Ask your child to make a list of items that can be bought in 1-litre containers.

Greater than, less than or equal to a litre

You will need a 1-litre measure (e.g. a jug) and a selection of containers of different shapes and sizes (e.g. soup carton, juice carton, mug, cup, egg cup, ladle, saucepan, vase, jug, teapot, glass, lunchbox). You will also need water (sand, rice or pasta shells will also do) for measuring. Focus on one container at a time. Ask your child to estimate whether the container holds more than a litre, about a litre or less than a litre. The best way for your child to learn about capacity is to allow him/her to physically carry out these experiments, so allow your child to fill the container with water. Pour the water from the container into the 1-litre jug to prove if his/her estimate is correct.

1/2 litre or 1/4 litre?

For this activity, you will need two 1-litre jugs and a selection of containers that hold less than 1 litre (e.g. glass, bowl, cup, ladle, plate, spoon, egg cup, yoghurt carton, tubs). On the first 1-litre jug, clearly mark the ½-litre and 1-litre marks. Show your child the ½-litre mark. (You can mention that s/he will often see 500ml here.) Encourage your child to name containers that might hold about ½ litre. Focus his/her attention on the array of containers. Ask your child to estimate whether the containers hold more than, less than or about

1/2 litre.

Check the estimates. Fill each container with water and then pour the water into the 1-litre jug that has the ½ -litre marking clearly visible on it.

Repeat the above activity to examine the $\frac{1}{4}$ litre in a similar way.

