



Capacity

What you will need:

- An outdoor space that you don't mind getting wet!
- A range of household items & containers (pans, jugs, cups, bowls, watering cans, empty bottles from the recycling, anything that could hold water!)
- Water
- A measuring jug if you have one

Capacity offers lots of practical opportunities to apply mathematical skills. Taking it outdoors ensures less of a clean up effort afterwards.

Estimating & comparing

Line up all of the household containers in your outdoor space. Ask your children to observe them empty and put them in order from the container that will hold the least water to the container that will hold the most. If you have containers that have the capacity marked on e.g. soap or water bottles you could cover them up to make the challenge even harder!





Capacity

Questions you could ask:

Which container will hold the most/least water? What makes you think that?

Even though that container is shorter is it wider than the other?

Will this make a difference to how much water it will hold?

That container is narrower will it hold more or less?

Once the containers are lined up in their estimated order. Begin by filling the smallest container with water. Tip it into the next container in the line up. If the order is correct, the next container will easily hold all of the water and require a little topping up. If it is incorrect the water will overflow! If your children find they have guessed incorrectly ensure that they start again from the beginning as it may be that a container holds a much smaller capacity and need moving several spaces down the line!

Once the containers are in the correct order you could use water and a measuring jug to find out how many milliliters each container holds. Use our free outdoor writing sheet for some ideas on how to record this! Once your child has measured the capacity of every container you could investigate some mathematical questions together.

Questions you could ask:

How many milliliters can the largest/smallest container hold?

Is the capacity of any of the containers equal?

Choose a container. Can you combine the capacity of the other containers so that they equal the same?

What is the difference between two containers?





Capacity

Solving a problem

Once your child is secure with measuring and comparing capacity you could set them a problem to solve. This often works well when given a context. In the example below we have used the story 'George's Marvellous Medicine' and given a recipe to make a medicine. You could relate the problem to a different story you have at home or change the ingredient names to make a soup/potion recipe.



Give your children time to solve the problem. Encourage them to think about where they will start and why. Once they have finished you could challenge them to go on and write their own capacity problem or alternatively write their own recipe using their capacity knowledge!

