

Displacement Tank

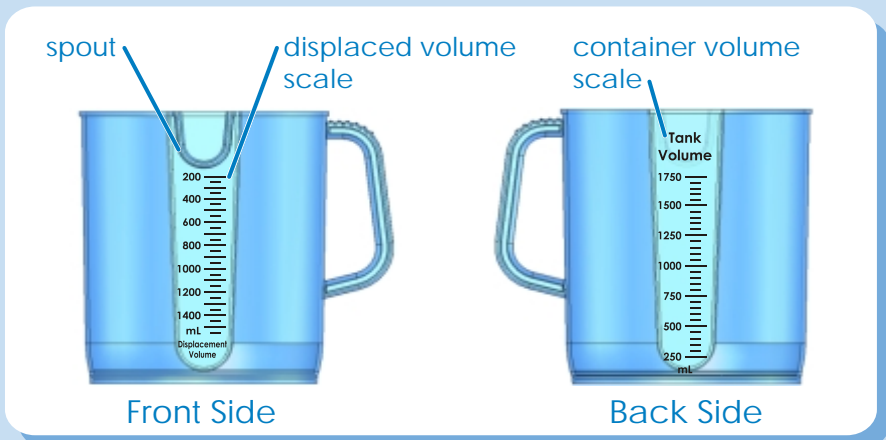
Setup Instructions

The Displacement Tank makes measuring volume simple. By measuring the amount of water an object displaces, an accurate object volume can be determined. The Displacement Tank is versatile because it has two scales, one for measuring water displaced, and one for measuring the volume of water in the container.

Understanding the Displacement Tank

The scale on the front side of the displacement tank (under the spout) measures the displaced volume.

The scale on the back side of the displacement tank measures the container volume, as shown at far right. This can be used for other activities besides displacement investigations.

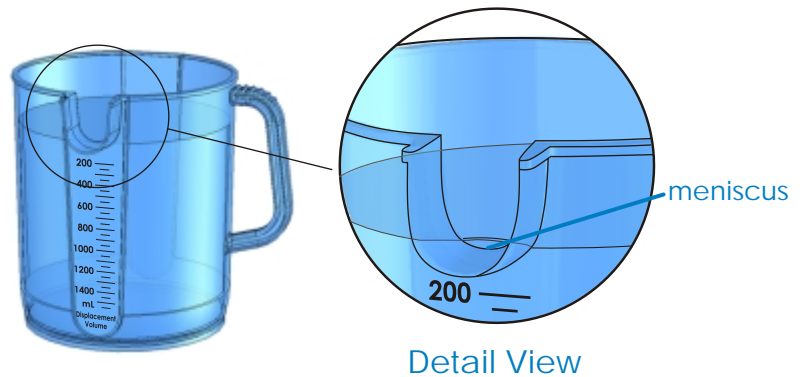


Using the Displacement Tank

Place the displacement tank on a level surface. Place a beaker below the displacement tank's spout to catch the displaced liquid.

Fill the tank with water up to the bottom of the spout. The water's meniscus should be slightly higher than the bottom of the spout, as pictured in the detail view at right. NOTE: to achieve a "full" container, pour extra water into the tank slowly until it overflows into the beaker.

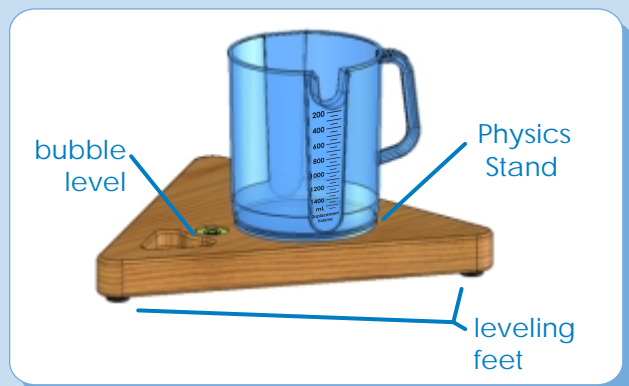
Discard the extra water in the beaker and place the empty beaker under the spout before you place an object in the tank for measurement.



Leveling the Displacement Tank

TIP: To achieve the most accurate measurements, make sure the displacement tank is on a level surface. This is easily achieved using a Physics Stand base.

Place the Physics Stand base on a flat surface. Adjust the leveling feet until the bubble in the bubble level is centered. Use the leveled Physics Stand Base as your level surface.



For activities, consult your *Teacher's Guide*.