

What's the Measure? Instructions

Designing and Managing the Measurement Stations

Management tips:

1. Divide the class into groups of 4, including a team captain.
2. Before the participants go to the stations, review the purpose and procedure for each station and establish a method to go from station to station. Determine an appropriate time to spend at each station.
3. Establish other ground rules. Assure the participants that there will be no "practice" rounds. There should be only one chance at each station.
4. Measure to the nearest half-unit.
5. Each station should have a task card with the instructions for what to do, but the activity goes more smoothly if you can have an assistant for each station who knows how the station should work.
6. Give the participants time to make their predictions before they proceed to each station.
7. Each captain should read the instructions before beginning the activity. Estimates should be made and recorded before proceeding. Captains should check to make sure the group has done the activity properly and recorded his/her results before moving to the next station.
8. The leader should keep time and give a five minute warning before the end of the time for a station.
9. Before leaving the station, the materials should be placed back in the appropriate place for the next group.

Weight Station: Marbles

Materials needed: marbles, spring scale with container

Set-up tips: Be sure to have the marbles in a big enough container so that each student can reach his **RIGHT** hand in the container to grab a handful of marbles. Ask the participants to take turns. Along with the spring scale, you will need a container to place the marbles for weighing.

Weight Station: Beans

Materials needed: Beans, spring scale with container

Set-up tips: This station should reflect the marble station, except a participant should use his/her **LEFT** hand to grab the beans.

Length Station: Paper Plate

Materials needed: paper plates, tape measures, yard sticks, masking tape for marking the starting line

Set-up tips: Mark the starting line so that the participants will throw the plate from the same place and measure from that line. Measurements should be made from the starting line to the center of the paper plate, a straight-line distance.

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Length Station: Straw

Materials needed: plastic straws (without the corrugated bends), tape measures, yard sticks, masking tape for marking the starting line

Set-up tips: This station should reflect the paper plate throw. Measurements should be made from the starting line to the midpoint of the straw, a straight-line distance.

Capacity Station: Sponge

Materials needed: two clean sponges, bucket of water, dishpan to squeeze sponge into, measuring cup(s), (funnel)

Set-up tips: Cover the work area with plastic (a large garbage bag will work). The sponges need to be large enough to soak in a generous amount of water but not too big for the participants' hands. Once the participant has squeezed the water into the dishpan, the participant should pour the water into the measuring cup. If the measuring cup has a small opening, have a funnel available to the pour the water from the dishpan into the measuring cup.

Capacity Station: Towel

Materials needed: two small towels or two large dishcloths, bucket of water, dishpan to squeeze the water, measuring cup(s), (funnel)

Set-up tips: Cover the work area with plastic (a large garbage bag will work). The towels or dishcloths should be large enough to soak in a generous amount of water, but not too large for the participants' hands. Once the participant has squeezed the water into the dishpan, the participant should pour the water into the measuring cup. If the measuring cup has a small opening, have a funnel available to the pour the water from the dishpan into the measuring cup.