

# Statistical Sampling with a Beach Ball Globe

## Larger Significance of This Activity

At this station, participants will toss a large beach ball globe keeping track of whether the index finger of their writing hand touches land or water each time. Participants will tally their results on a bar graph that everyone can add to during the evening. Older participants can compute the estimated percentage of water on Earth.

This station illustrates sampling as a method in statistics. Important ideas are that sampling is a good way to reach quantitative conclusions about large data sets. Taking more samples makes the measurement more accurate.

## Materials List

- beach ball globe
- 5 Markers
- Several calculators
- Data sheets on posters for recording collective data

## Volunteer Instructions

1. Have groups toss a beach ball globe, with each person calling out water or earth corresponding to the location of the index finger of their writing hand.
2. Participants should take turns recording results on the bar graph.
3. Periodically, participants should update a chart with the current time, cumulative land hits, water hits, total hits, and the percent of the Earth that we think is water based on our sampling so far.