



Data Crunchers

Description:

Teams will demonstrate their understanding of metric measurement by estimating and measuring length (meter), mass (gram), fluid volume (liter), angles, and temperature (Celsius). Teams should also be able to create and interpret data tables, bar graphs, line graphs, pie charts, and pictographs and make basic calculations that include time, money, fractions and percentage.

Number of Participants: 2

Approximate Time: 45 minutes

Materials: None

The Competition:

1. This event will be run as stations that the students rotate through. Stations may include but are not limited to questions involving the use of rulers, calculators, protractors, meter tapes, meter sticks, balances, beakers, graduated cylinders, thermometers, objects to measure and various types of graphs to be analyzed. Stations may assess any or all of the following topics:
 - a. Estimate or measure the angle degree, mass, volume, length, area, or temperature of various objects in metric units to the precision requested.
 - b. Understand relative scale of metric units and which is appropriate for measurement (mg, g, kg, mm, cm, m, km, mL, L, kL, °C, °K, cm², cm³) in different scenarios.
 - c. Collect data (e.g. number of water drops various coins can hold) and represent that data in a correctly labeled graph or data table.
 - d. Plot data points, make and interpret data tables, draw and interpret graphs, including what trends can be predicted from the data shown.
 - e. Make estimates of data between or beyond the data points given.
 - f. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.
 - g. Calculate the amount of time between two events (No time zone calculations).
 - h. Calculate fractions or percentages based on charts, tables or data.
 - i. Solve word problems that involve the use of money.

Scoring:

The score will be based on the following:

- Points awarded for the accuracy of responses. Ties will be broken by responses to pre-selected questions chosen by the event leader or time.