Metric Mania

1. **DESCRIPTION**: Teams will demonstrate their understanding of metric measurement by estimating and measuring length (meter), mass (gram), fluid volume (liter), angles, and temperature (Celsius) and making calculations based on these measurements.

2. **ESSENTIAL STANDARDS ALIGNMENT**: Measurement & Data and Geometry are unifying concepts for all grade levels across the Common Core Standards.

3. **TEAM OF UP TO**: 2

4. **MAXIMUM TIME**: 60 min.

5. **TEAMS**: Must bring NOTHING to the competition, writing instruments will be provided.

6. **EVENT LEADERS**: Must provide writing instruments and student response sheets for each team. Event leaders may also provide items such as: rulers, calculators, protractors, meter tapes, meter sticks, electronic and/or triple beam balances, beakers, Erlenmeyer flasks, graduated cylinders, thermometers, calipers, and objects to measure.

7. **SAFETY REQUIREMENTS**: None

8. **IMPOUND**: No

9. **THE COMPETITION**: This event will be run in a station format. Teams will rotate through stations that 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, ^{o}C, K, cm^2, cm^3) in different scenarios.
   c. Draw and identify lines and angles and classify shapes by properties of their lines and angles.
   d. Know how to measure and calculate volume of a rectangular prism, a liquid in a container, or an irregularly shaped object given water and a graduated cylinder.

10. **SCORING**: Points will be awarded for the accuracy of responses. Ties will be broken by the accuracy or quality of answers to selected questions chosen by the event leader prior to competition.

11. **EVENT RESOURCES**:
    See the Event Resources tab on our website at www.sciencenc.com for instructions, videos and more.