Elementary Science Field Day

Structures

Description: The purpose of this event is to test students’ ability to build a strong, stable, tall and reproducible tower utilizing soda straws and T-pins. The objective of this competition is to see how much weight the completed tower can hold before collapsing.

Participants: 2

Time: 30 Minutes

**All materials will be provided at event site. No notes or measuring tools will be allowed.**

Construction Rules:
Each Team will be given: 9 x 15, approximately 1 inch thick styrofoam (building platform), scissors, fifty(50) Smart and Final jumbo 7 3/4” unwrapped straws and 30 medium (1 1/2”) T-pins*(straws and pins will be used for the structure). No other building materials will be used. All materials needed will be provided.

Using the building platform, the team is to construct a standing tower at least 50 cm tall that is capable of holding as much weight as possible. There should be a flat area on top of the tower no smaller than 10 cm in width to hold a tag board loading platform and plastic bowl. Weights (pinto beans) will be loaded into the plastic bowl. The Plastic straws may be cut or shaped in any way.

When the tower is completed, the team will place a loading tag board and plastic bowl on top of the tower. The event’s organizer will load the bowl quickly and as carefully as possible with the weights. When the tower can no longer hold the weight or the bowl falls off, the loading will stop and the weights will be weighed on an electronic scale.

Teams may pick up their towers after the competitions.

Scoring:
One point will be awarded for each gram of weight placed on and supported by the tower. This will include the weight of the plastic bowl.

Reminder:
The minimum height of the tower is 50 cm and there must be a flat area to serve as the loading platform on top. Your team will have only 30 minutes to plan, build and test their tower before loading and weighting of weights takes place.

*Note: T-pins can be purchased online from Office Depot.** No spectators will be allowed during this event. Thank you.