

Duct Tape Challenge

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NCSO Resources: <https://www.sciencenc.com/resources/middle-school/duct-tape-challenge/>

Description:

This event is a build-on-site event. Teams will arrive at the competition and be given a set of materials, primarily Duct Tape, and a task. They will then have a given amount of time to complete whatever task they are assigned, such as building the tallest tower, widest bridge, most buoyant boat, etc. The task parameters will be clearly outlined for the teams. At the end of the build time, teams will test their structures to determine the winner.

Materials:

Teams are not required to bring anything. Teams MAY bring 1 scissors, 1 ruler, a stopwatch, and something to write with.

Scoring:

The scoring guidelines will be clearly outlined in the task instructions. A primary and secondary parameter will be given. The primary parameter will be used for ranking teams, the secondary parameter will be used to break ties.

Coaching Tips:

- This is a creativity, “thinking on your feet” event. Choose students who are confident in their design ideas.
- Teams should have one “idea person” and one “build person”.
 - The idea person is the designer, the one who can come up with an idea quickly.
 - The build person is the construction expert.
- Familiarize students with engineering principles.
 - Talk to the Boomilever team!
- Teach students how to roll duct tape.
- Teach students how to roll paper.
- Make challenges for practice hard and limited in resources.
- Consider at tournaments, a lot of teams will be there. There will be limited space and resources for students to build with. You need to practice this.
- Have students practice building on tables, counters, floors, etc.

- The goal is to have students comfortable to build in any situation.
- Practice makes perfect. Get LOTS of Duct Tape and practice, practice, practice!
- Hobby Lobby has LOTS of Duct Tape in a variety of colors.