



**Kansas State University Open House
College of Engineering High School Competition
Architectural Engineering
April 13, 2007**

Objective: To build the tallest and strongest tower using only gumdrops and toothpicks.

Time: Each Team will have 30 minutes to build the best tower they can. This time includes all designing and building that will be done.

Teams: Each team must consist of three individuals, all high school students, and one of the team members must be a female.

Tools: The gumdrops and toothpicks that each team will need in order to build their tower will be provided by the Architectural Engineering Department.

Rules:

- 1) Each tower must only consist of the gumdrops and toothpicks provided
- 2) There is to be no outside help in designing the tower, only the three team members can collaborate to design their tower.
- 3) The tower must contain a flat top that can have a piece of plastic set on to support the Dixie cups and fish weights.
- 4) All supplies must be set down when the time keeper calls time after the 30 minutes is up.

Judging Criteria

- 1) The towers height will be measured from the base that sits on a flat surface to the part of the tower that will hold the weights to measure strength.
- 2) The tower's strength will be measured using fish weights, placed in a Dixie cup that will be place on the tower.
- 3) The tower's overall design will be evaluated looking for structural components and neatness.

Prize: A scholarship will be awarded to each member of the winning team.

Questions regarding the High School Competition should be directed to Brandon Frey at bfrey@ksu.edu or Kim Williams at kimmyum@ksu.edu or check out the Architectural Engineering Institute website at <http://www.k-state.edu/aei/>