



fill a need - solve a problem

RULES

Imagineers 2010

1. Mission
 - a. Imagineers challenges teams of fifth graders to design and build something that will “fill a need and solve a problem” using household materials, K’NEX toys and mystery items.
 - b. K’NEX (Provided at the Contest):
 - 1) An unspecified quantity.
 - 2) Not less than 4 large wheels, 4 small wheels, 2 large gears and 4 small gears.
 - 3) Approximately the same quantity and the same selection of K’NEX parts.
 - 4) Extra parts will be provided.
2. Team
 - a. Members in the Fifth Grade.
 - b. Not more than 3 members.
 - c. All from the same school.
 - d. Shall select a team name that does not reveal names of members, school, community or sponsors.
3. Preparation
 - a. Consult with sponsors, teachers, mentors, and parents to develop ideas prior to the contest. Refer to the Mentoring '10 available on www.imagineerscontest.org for appropriate involvement.
4. Tools (Provided at the Contest):
 - a. 1 scissors, 1 single-hole punch, 1 ruler, pencils, and parts tray.
 - b. Do **NOT** use as part of the project.
5. Household Materials (Provided at the Contest):
 - a. Household materials that can be cut, hole-punched or otherwise modified:
 - 4 Foam plastic cups
 - 4 Picnic plates
 - 6 Drinking straws
 - 1 Floppy disc removed from container
 - 4 Plastic film containers without lids
 - 1 Aluminum foil (approximately 8 inches square)
 - 4 Poster boards (approximately 8 inches square)As needed: (you can ask for more)
Rubber bands (various sizes)
White paper (8-1/2 by 11 inches)
Paper clips (shape modified only)
 - b. Household materials that can **NOT** be cut, hole-punched or otherwise modified:
 - 2 Plastic picnic forks
 - 2 Plastic picnic spoons
 - 2 Compact discs
 - 8 Binder clips (various sizes)
6. Mystery Items (Provided at the Contest):
 - a. 3 mystery items for each round of the contest.
 - b. Use not less than 2 items incorporated as an important component in the project.
 - c. The same for a particular contest.
 - d. Different for other contests.
 - e. Can **NOT** be cut, hole-punched or other wise modified unless announced differently at the contest.
7. Project
 - a. Either a working model or a mock-up of a larger object.
 - b. Comply with the following requirements to not be disqualified:
 - 1) Contained within the limits of the 24-inch by 32-inch project board.
 - 2) Less than 18 inches in height above the project board.
 - 3) Incorporate at least 2 mystery items provided at the beginning of each round.
 - 4) Conform to the Project Description – Part 1 submitted by each team.
8. Contest
 - a. Team may not bring K’NEX pieces, materials, descriptions, photographs, drawings, models or similar items into the construction arena.
 - b. Work shall not begin until announced.
 - c. 1 hour to complete their project.
 - d. Prior to completion of the project the team shall complete Project Description – Part 2 to assist the judges in understanding their work.
 - e. “Time remaining” announcements will be made to help the team stay on schedule to finish their project and Project Description.

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- f. Work on the project shall stop when announced.
 - g. Team shall step back but remain at their project table until their photograph has been taken and they are excused to leave the construction arena.
 - h. At the team's option, they may remain to hear the results of the judging.
9. Communications
- a. Communications will include any kind, with or by the team.
 - b. During the contest, team members shall only communicate with other members of their team or with the proctors.
 - c. During the contest, spectators shall not communicate with a team member and team members shall not communicate with a spectator.
 - d. Any team caught giving or receiving communications will receive a warning.
 - e. A public announcement will be made when a team has received a warning.
 - f. If any team is caught giving or receiving communications a second time, the team will be disqualified and will be instructed to immediately leave the contest.
 - g. If a spectator or team member needs to communicate, they shall ask a proctor to forward the message.
10. Questions
- a. If a team member has a question:
 - 1) The team member shall raise their hand and then pose the question to a proctor.
 - 2) The proctor will forward the question to the committee.
 - 3) The committee will make an announcement by repeating the question and giving the answer so all contestants will receive identical information.
11. Leaving the Contest
- a. If a team member has to go to the restroom:
 - 1) The team member shall ask a proctor.
 - 2) A volunteer will then escort the team member to the restroom.
 - 3) The team will work, less that member, until the team member returns.
 - b. If a team member leaves the contest for any reason without the permission of a proctor, the team member will not be allowed back into the contest.
12. Judging
- a. Judging will begin when the announcement to stop has been given.
 - b. Scores will not be revealed.
 - c. Decision of the judges will be final.
 - d. For each preliminary contest:
 - 1) Top projects will be selected to advance to the final judging.
 - e. For the Final Judging:
 - 1) The top projects from each of the preliminary contests will be judged against each other.
 - 2) Gold, silver, and bronze projects will be selected.
 - 3) Honorable mention projects may be acknowledged.
13. Judging Criteria
- a. Points will be awarded based on the following criteria.
 - b. "Fill a need or solve a problem." 25 points.
 - 1) More points are given for –
 - a) New and innovative projects rather than update of items that are in common usage.
 - c. Creatively incorporate household items and at least two mystery items. 25 points.
 - 1) More points are given when –
 - a) More household materials than K'nex pieces are used because judges are concerned that projects constructed mainly of K'NEX pieces may be plagiarized from K'NEX catalogs.
 - b) The mystery items are used as an important component of the project rather than a decorative addition.
 - d. Use good engineering principles. 25 points.
 - 1) More points are given for –
 - a) Projects that are sturdy, not shaky or wiggly with strong joints and connections, bracing, and similar techniques.
 - b) Every component of the project is necessary – no extraneous parts.
 - e. Create a good overall impression. 25 points.
 - 1) 1) Aesthetics, neatness, and other aspects that are pleasing to the judge will receive extra points.