1985 Long-Term Problems

Ecology Dozer 1984-1985
Divisions II & III
Design, build and drive a vehicle powered by one or two hydraulic jacks. The driver will operate the vehicle (dozer), pick up four trees in one-pound cans from a tree farm and transplant them in designated areas. The team will then change drivers for a return trip. The dozer must be operated by raising the lift or piston of the jack via hydraulic power. Time limit: 10 min. Cost limit: $40 USD.

The Big Top 1984-1985
Divisions I & II
Create a performance in which animals portrayed by the team perform tricks, acts, etc. One team member must be a Ringmaster, another may be an animal trainer. The animals may be real or imaginary, but one must be a two-person animal and one must be "raggedy" in a costume costing no more than $1. All props and costumes must be made by team members. No live animals may be used. Time limit: 8 min. Cost limit: $36 USD.

Music, Maestro, Please 1984-1985
Divisions I, II & III
Select a classical music composition from a given list and use it to accompany a performance or visual presentation of the team's design. The presentation must be based on an event in the life of the composer, the composer's reaction to events of his time, a dramatic idea or story, an artistic display (painting, sculpture), a natural phenomenon (storm, dawn, river), promoting an idea or product, ("Join the army", "Vote for Jones"), or a fantasy. Time limit: 10 min. Cost limit: $40 USD.

Hi Tech, Smarty Pants 1984-1985
Divisions I, II & III
Design, build and operate a robot, "smarty Pants," to provide answers to questions in math, science, social studies and geography; recite or display two historical facts; pick up trash; and hand in a term paper for Pat, who is sick. Time limit: 10 min. Cost limit: $40 USD.

Compound Fracture 1984-1985
Divisions I, II & III
Design and build a series of structures out of balsa wood and glue to support the greatest weight. The structures will be four total: two base supports 3" x 3" x 3" in each direction; one beam structure not less than 8 inches in length that sits atop the base supports; and one load-bearing structure that will sit atop the beam and will be the only piece in contact with the weights. The series of structures must be at least 8" inches high and weigh no more than 35 grams.

Mother Goose 1984-1985
Primary