

2012-13 Long-Term Problem Synopses*

**Tentative as of April 20, 2012. All problems have an 8-minute time limit.*

Problem 1: Pet Project

The problem is to design, build, and run three vehicles that will deliver parts to an Assembly Area. The team will create a signal that lets the audience know which vehicle is about to travel and deliver a part. The parts will be assembled into a pet animal. Once assembly is completed, the animal will perform a trick. The theme of the presentation must include the delivery of the parts, the assembly, and the pet animal.

Divisions: I, II & III. Cost limit: \$145.

Problem 2: The Email Must Go Through

The team's problem is to create and present an original performance that includes a technical representation of messages being sent by email. A Sender character will send three emails: one that requires a return receipt, one with a work of art as an attachment, and one that goes through a SPAM filter. Two of the emails will go to a Receiver character and another will go to an offbeat location. Each email will pass through a central server before reaching its final destination. Team members are not allowed to touch the emails while the server is processing the messages.

Divisions: I, II, III & IV. Cost limit: \$145.

Problem 3: Classics . . . ARTchitecture: The Musical

For this problem, teams will create and present an original performance that includes a replica of a documented architectural structure that was built between 1,000 AD and 1,600 AD. The performance will include three works of art that "disappear" and two characters that go on a quest to find them. When the works of art are found, they will be incorporated into the replica. The performance must also include two songs that are accompanied by some type of choreographed movement.

Divisions: I, II, III & IV. Cost limit: \$125.

Problem 4: Tumble-wood

Teams will design and build a structure made of only balsa wood and glue that will balance and support as much weight as possible. Before weight placement begins, the team will present a commercial that includes the structure rolling down a ramp. The structure will be scored for how far it rolls and for how much weight it holds. The team will integrate the placement of the weights into the performance.

Divisions: I, II, III & IV. Cost limit: \$145.

Problem 5: It's How You Look at It



The problem is to create and present an original humorous performance that includes two characters that act naturally — to them — but odd to those around them. One scene will establish the "normal" behavior of one character that, at some point in the performance, finds itself among others who react to the out-of-place behavior. The other character's behavior will stand out too, but this character will end up in a setting where its odd behavior is considered normal. The performance will also include a meter that indicates the degree of odd/normal behavior and a creative scene change. **Sponsored by NASA.**

Divisions: I, II, III & IV. Cost limit: \$125.

Primary Problem: Top Sea-cret Discoveries

The problem is to create and present a performance that includes exploring the ocean and making discoveries. Along the way, they will encounter three different types of sea life and a humorous Captain character. Teams will also create an original reason for the ocean's waves and make a silly discovery that they have to help keep secret.

Grades K-2. Cost limit: \$125.