

2015-16 Long-Term Problem Synopses

All problems have an 8-minute time limit.

Problem 1: No-Cycle Recycle

Teams will build, ride on, and drive a no-cycle, recycling vehicle. It will pick up discarded items, adapt them in some way, and then deliver them to places to be re-used. The vehicle must travel without pedaling for propulsion. In addition, the driver will have an assistant worker riding on the vehicle that will help process the trash items being repurposed. They will make an unplanned stop along the way and perform a random act of kindness.

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

Problem 2: Something Fishy

Teams will design and operate a technical solution that simulates multiple styles of fishing. A Fisher Character will work from a designated area to “catch” three different objects that are outside of that area. The catch will be on the move and will include something expected, something unexpected, and a new discovery. The performance will also include a change of weather and a humorous character that portrays a potential catch and avoids being caught by the Fisher.

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

Problem 3: *Classics...* Aesop Gone Viral

Teams will create and present an original performance about a fable that goes “viral.” The problem will include a list of fables attributed to Aesop. Teams will select one and portray it, and its moral, as going viral — that is, being shared throughout the community and beyond. The performance will be set in a past era and include a narrator character, an artistic representation of the fable’s moral, and a character that makes a wrong conclusion about the moral and is corrected.

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

Problem 4: Stack Attack!

This problem requires teams to design, build, and test a structure, made only of balsa wood and glue that will balance and support as much weight as possible —twice. During weight-placement, teams can “Attack the Stack” where they will remove all of the weights except for the bottom one and the crusher board. Teams will also receive score for removing weights! After Attacking the Stack, the weight placement process can be repeated to add to the total weight held. Teams will incorporate weight-placement, repetition, and Attacking a Stack into the theme of the performance.

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

Problem 5: Fins, Furs, Feathers & Friends

The team’s problem is to create and present a humorous performance depicting problem solving from the perspective of three different animals. The animals will help a stranger, help each other, and solve a problem that threatens the survival of all animals. During the performance, the animals will sing and dance. They will also show curiosity, sympathy, frustration, and joy.

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

Primary: Stir the Pot

Teams will create and present a humorous performance about an object that comes to life when touched by an item that turns out to be magical. While it is alive, the animated object will encounter three other objects that will result in a dramatic change of behavior. There will be a narrator character that explains what is happening and a character that becomes friends with the object. The performance will also include a team-created poem, song, or dance.

Cost limit: \$125 USD.