

# 2021-2022 LONG-TERM PROBLEM SYNOPSES



## Primary: Tri-Cycle Transport

Grades K-2

We all know where the wheels on the bus take us, how about the wheels on an OM-Mobile? In this problem teams will design and build one or more vehicles used to transport something. Teams will build a vehicle that is powered three ways: human power, gravity, and free choice (e.g. battery, wind). The vehicle will travel forward, backward, and turn to a side. The performance will also include a funny narrator, a mechanic character, a salesperson, and a song about transportation that has a lyric repeated three times.



## Problem 1: Escape vroOM

Divisions I, II, III & IV

Odyssey teams take their problem-solving skills *inside* a box as they create a performance that includes one or more team-created vehicles that will help a group of characters escape an unusual room. The vehicle will travel to areas within the room and complete tasks. Each time it completes a task it will release a "clue" that the group will use in the next area to release the next clue, and so on. When the vehicle performs the final task, it will reveal a final clue that allows the group to escape the room and they discover the mystery behind the room!



## Problem 2: Odyssey ReOMvention

Divisions I, II, III & IV

Sponsored by ARM & HAMMER™

While no one knows what the future holds, it's likely OMers will have an important role in it! To prove just that, teams will present a performance that identifies an original threat to the environment that self-replicates until a team-created technical reOMvention removes the threat. The team's setting will reflect the threat and then return to its original state. The performance will also include original music, two animal characters, and must use ARM & HAMMER™ Baking Soda.



## Problem 3: Classics... (Name Here): The Musical Production

Divisions I, II, III & IV

Historical figures get an encore as OMers re-tell their stories in musical form. In this problem, teams will create a biographical musical about a selected historic figure. There will be three songs: an opening number, an emotional number whose music conveys an emotion, and one determined by the team. The performance will also include a lighting special effect, movement of scenery, and a membership sign that will appear as a marquee for the team's musical.



## Problem 4: Matryoshka Structure

Divisions I, II, III & IV

It's always the more the merrier with nesting dolls, also known as Matryoshka! In this problem, teams will design and build a Matryoshka Structure made of only balsa wood and glue that holds as much weight as possible. The 8+ structure will hold additional structures nested one inside the other. The more structures that are nested, the higher the score! Before weight placement can begin, the nested structures will be removed one-by-one to reveal a tiny character nested inside the smallest structure. The performance will have a theme about storage that includes placing weights, the structures, and the tiny character.



## Problem 5: Life is a Circus!

Divisions I, II, III & IV

Sometimes life seems like a circus! Teams will create a performance about a young person enjoying a regular life in our world who wakes up one day to discover they somehow were transported into a circus world. In the circus world there will be original animals performing unexpected tricks, a clown, circus acts, and a ringmaster that announces the activities. The young person returns to the regular world thinking it was all a dream until they see a mysterious figure that turns out to be from the circus.

BECOME A MEMBER AND SOLVE ONE OR SOLVE THEM ALL!