

# 2020 Long Term Problems

*Tentative as of April 22, 2019. All problems have an 8-minute time limit.*

## **Problem 1: Longshot Solution**

A group of “Longshots” believe a disastrous event that threatens the world is about to occur and must stop it. Because no one takes them seriously, it is up to the Longshots to solve the problem. To succeed they must send materials from all corners of the world using vehicles that overcome obstacles and travel simultaneously into and out of a Reaction Area. As time counts down the Longshots will use the components, including baking soda, to create a reaction that produces a very special effect and saves the day!

## **Problem 2: Net Working**

Computers, satellites, and servers work continuously to allow people from all over the world to network with each other. These networks give us access to information including communications, messages, and videos. In this problem, the networked devices are characters who work to keep the world connected. During the performance, an image, a text message, an email and other information will be transmitted between locations in a team-made system. Pop-up advertisements appear and a malware character will infect the network and take it offline. An anti-virus hero comes to the rescue and team-made instruments will be used to present an original song that explains their jobs.

## **Problem 3: Classics... The Effective Detective**

You will be introduced to one of the greatest detectives the world has ever known as they follow clues to uncover the truth behind some of history’s real-world mysteries. The detective will investigate different types of information, including a clue that is a “red herring” i.e. a distraction, and do intellectual battle with a supervillain who wants the detective to fail. Sounds will ring out and settings will creatively change to set the scene and highlight the action. The team will also be challenged to use the smallest space possible to store its solution.

## **Problem 4: Balsa Limbo**

Teams will build balsa wood structures that are created by adjusting its interconnected parts. When the parts are not in the final form for weight testing, they must be able to pass under a limbo bar. Higher score will be awarded for how low the bar is when the structure passes under it. However, the bar is not allowed to be lower than ½"! The limbo bar test and maneuvering the structure for testing will take place during the performance time. Testing of the structure will take place during a performance with a theme about dancing and movement.

## **Problem 5: Gibberish or Not**

Genius or not so smart, statements change from Gibberish at the start. Do the thoughts shine or miss the mark? Masses think they’re being led out of the dark. A Champion arranges meetings with those in power, and gibberish ideas bloom like a flower. The crowd replaces thoughts with wisdom, and a Child sees it is all just humdrum. Misinterpreted over and again, twisted words fly in the end. Music blares and the celebration is wild, and misunderstanding is accepted by the child. The performance will explain why the child does not reveal the truth that what they believe is wisdom was really just gibberish.

## **Primary: The Fashion Bug**

Grades K-2 only

The team’s problem is to create and present a humorous performance that includes a fashion show for insects. An up-and-coming designer will be highlighted as a narrator describes the odd and curious fashions as they are modeled. A team-created song, a commercial, and a critic who reviews the Fashion Show are all part of the performance.