MYSTERY ARCHITECTURE B 2026
VASO VERSION

1. **DESCRIPTION:** Teams must construct a device on-site to solve an engineering challenge.
   A TEAM OF UP TO: 2 **EYE PROTECTION:** B **APPROXIMATE TIME:** 50 minutes

2. **EVENT PARAMETERS:**
   a. Each student may bring 1 pair of scissors, 1 flat standard 30 cm (12 inch) ruler, and 1 pair of pliers.
   b. Participants must wear eye protection during construction and testing. Teams without proper eye protection must be immediately informed and given a chance to obtain eye protection, but will receive no additional time for the build task.
   c. No other materials, tools, notes or resources are permitted.

3. **THE COMPETITION:**
   a. Each team will be given a bag containing the same materials and written instructions as to the type of device to be constructed. The students will not know the task until they begin the competition.
   b. Examples of materials that may be provided include, but are not limited to: paper cups, drinking straws, paper clips, string tape, paper, thumbtacks, and craft sticks. Only those materials contained in the bag may be used to build the device. The bag and instructions must not be used in the build. No other materials, including the student-brought supplies, may be part of the finished device.
   c. The devices to be built are limited to an elevated bridge, cantilever, arch or tunnel.
   d. Each team will receive their own copy of the written instructions for the build. The instructions must identify a Primary Dimension, a Secondary Dimension, whether the device must support a load, and the required duration of load support.
   e. Unless specifically stated in the instructions, devices must be freestanding and must not be attached to a tabletop, table leg, floor, ceiling, or other support.
   f. If the device must support a load, a separate identical load (the “practice load”) of the same dimensions and weight as used for testing will be provided to each team. When finished building, the practice load must be removed from the device. The event supervisor will direct the participants when to place the official test load in/on the device.
   g. During the testing of the device, teams may not adjust or alter their device except to place the load, if applicable.
   h. Only participants and the event supervisor are allowed in the event area. Once in the event area, they must not leave or receive outside assistance, materials, or communications.

4. **SAMPLE TASKS (not intended to be an exhaustive list):**
   a. Elevated Bridge: The Primary Dimension could be the measurement between the closest inside supports plus the height from the base to the lowest bridge support.
   b. Cantilever with no load: The Primary Dimension could be the distance from the fulcrum to the end of the cantilever.
   c. Arch with a Load: The Primary Dimension could be the distance from the base to the highest point of the load.
   d. Tunnel: The Primary Dimension could be the measurement of the longest continuously enclosed portion of the tunnel.

4. **SCORING:**
    a. Highest or lowest score wins, depending on instructions
    b. Devices without load requirements will be ranked in order of Primary Dimensions as per instructions.
    c. Devices with load requirements will be measured prior to and after placement of the load, if successfully held. Such devices will be ranked as follows:
        i. Tier 1: Devices which support the load will be ranked in order of Primary Dimensions after the placement of the load.
        ii. Tier 2: Devices where the load is not supported (as defined in the instructions) will be ranked by Primary Dimensions as measured before the placement of the load.
    d. Builds not following the build parameters in the instructions or are not free-standing per rule 3e will be ranked in Tier 3.
    e. Ties will be broken by the Secondary Dimension.