

# Science Olympiad 2016 – Bridge Building B

Supervisors will record this information for each team and each team is encouraged to use this form as a **pre-tournament Checklist!**

Supervisors can also record team results on the Bridge Building spreadsheet found at [www.soinc.org](http://www.soinc.org)

Team Number: B\_\_\_ Team Name: \_\_\_\_\_ Rank: \_\_\_\_\_

Student Names: \_\_\_\_\_ Final Score: \_\_\_\_\_

## Construction Parameters

3.a. The Bridge spans a horizontal opening of 35.0 cm and one end of the Bridge is designed to sit on a single Test Support set at 5 cm high in one of the Bearing Zones of the Test Base and does not contact the Test Base in this Bearing Zone. Y N

3.a. The low end of the Bridge rests in the opposite Bearing Zone and the height of the Bridge is no higher than 2.0 cm perpendicular to the Test Base surface within that Bearing Zone. Y N

3.c. No portion of the Bridge extends below the top surface of the Test Base prior to testing. Y N

3.d. No portion of the Bridge braces against the sides of the Test Support at any time. Y N

3.e. The Bridge accommodates a Loading Block Assembly placed in the center of the Bridge span. Y N

3.f.,g. The Bridge is a single structure constructed only of wood and bonded by adhesive, and no other materials, including, adhesive tapes, are used. Y N

**ALL CONSTRUCTION PARAMETERS MET (IF N, TIER 3 OR LOWER)** **1. Y N**

## Competition Parameters

5.a.ii. No alterations, substitutions, storage, or repairs are made to the Bridge after check-in. Team does not leave, receive outside assistance, materials, or communication once entering the event area to compete. Y N

5.b.ii. Team members set the Test Support in one of the Bearing Zones so that the test support sits on one of the 2.0 cm x 5.0 cm faces. One end of the Bridge is placed on the Test Support and does not contact the Test Base. The other end of the Bridge is set in the opposite Bearing Zone. Y N

5.b.iv. Team members place the Loading Block approximately at the center of the test base opening. Y N

5.b.v. Team members assemble the Loading Block Assembly, eyebolt, chain, and S-hooks, and hang the bucket to load the Bridge. Y N

5.b.vi. Team members do not make any adjustments after sand loading has begun. Y N

5.b.vii. Team members do not directly contact the bucket except by using the tips of the stabilization sticks. Y N

**ALL COMPETITION PARAMETERS MET (IF N, TIER 2 OR LOWER)** **2. Y N**

## Other

6.c.iv. Bridge unable to load for any reasons (If Y, Tier 4) **3. Y N**

General Rule: Disqualified (notify the team and their coach as soon as possible) **4. Y N**

## Bridge Measurements

6.a. Mass of Bridge (in grams to the closest 0.01 g) **5. \_\_\_\_\_**

6.a. Load Supported (in grams; 15,000 g max) **6. \_\_\_\_\_**

6.d. Width of Bridge at the widest point of the Bridge prior to loading (in cm to the closest 0.1 cm) **7. \_\_\_\_\_**

**Score = Load Supported (g) / Mass of Bridge (g)**

Tie Breakers: 1. Lowest Bridge Mass, 2. Widest Bridge, measured at the widest point of the Bridge prior to loading