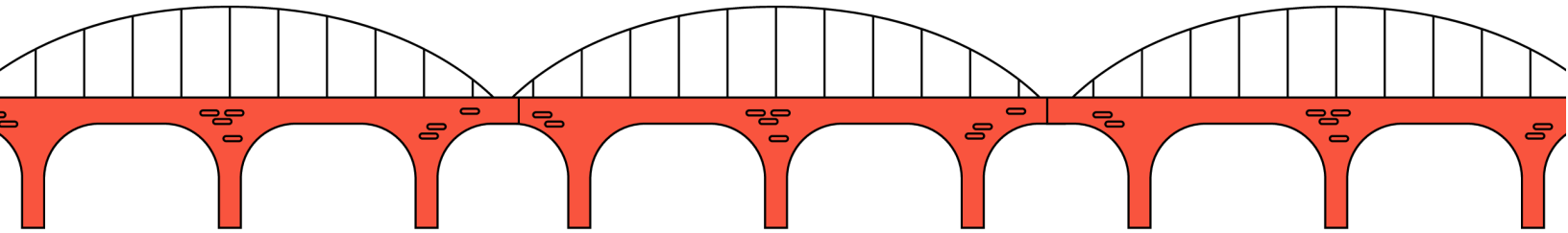


## EVENT #1 - BRIDGE BUILDING

Goal: Build a bridge that can hold the most weight.



### Materials List

- Craft sticks and Masking Tape (1st - 3rd graders)
- Spaghetti noodles, Masking Tape, Hot Glue (4th - 6th graders)
- Spring scale
- Bucket
- Sand or other material to add weight gradually

### Lesson Highlights

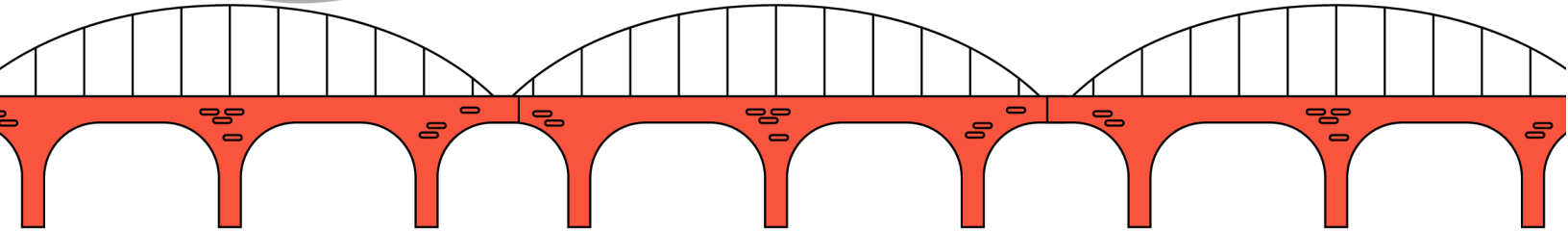
- Show examples of types of bridges. (Truss, Suspension, Cable Stayed, Arch, etc.) Compare and contrast their features
- Define and show the forces of compression and tension. Compare and contrast squares v. triangles in tension and compression.
- Students can now use this information to design and build their bridges. Place two desks or tables 18" apart to make a span for testing.
- Test each bridge using the spring scale and weight.

**Measure Success:** In the final event, the winning bridge will be the one that holds the most weight before breaking.

**Each student who completes the workshop should receive a sign-up flyer!**



# *You Did It!*



You've qualified for the BRIDGE BUILDING COMPETITION at the LANCASTER STEM SHOWDOWN!

Follow the link below to sign up for the competition to be held on:

Saturday, January 11th, 2025 from 10am - 12pm  
at McCaskey East High School

Space may be limited, so be sure to sign up now!

**EVENT #1 - BRIDGE BUILDING**

