Bridge Building!
What Makes A Strong Bridge?

- The triangle shape has been found to be the strongest in bridge building, largely because its angles do not change significantly, thus buckle, under stress as other shapes do.
Can you list Any Famous Bridges You Know?
Tacoma Bridge Collapse
Bridge Ideas To Consider

- Parallel Chord Truss
- Parallel Chord with Sloped Ends Truss
- Modified Bowstring
- Chorded Truss

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Materials:

- Spaghetti
- Marshmallows
- Paper Cup/Bowl
Making Bridges:

1. Start by building the sides of the bridge with spaghetti and marshmallows in the shape of an isosceles rectangle. Make sure the top and bottom pieces are straight.

2. Next add small pipe cleaner pieces inside the framework to form triangles inside.

3. Decide the best way to construct the top and the bottom of the bridge and attach the sides.

4. Test the bridge strength by placing a cup of paperclips on top of it. Count how many paperclips before it falls!

5. Keep in mind right angles and triangle shaped framework make stronger bridges

6. Keep in mind that you may split the spaghetti in half as well
Wrap Up

- What geometric shapes make the strongest bridges
- What else makes a bridge strong