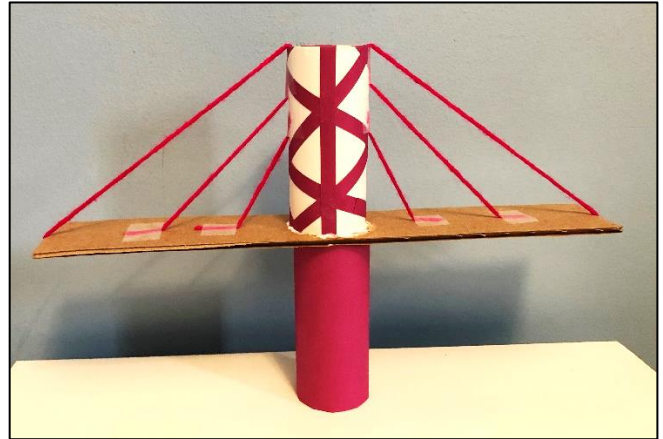
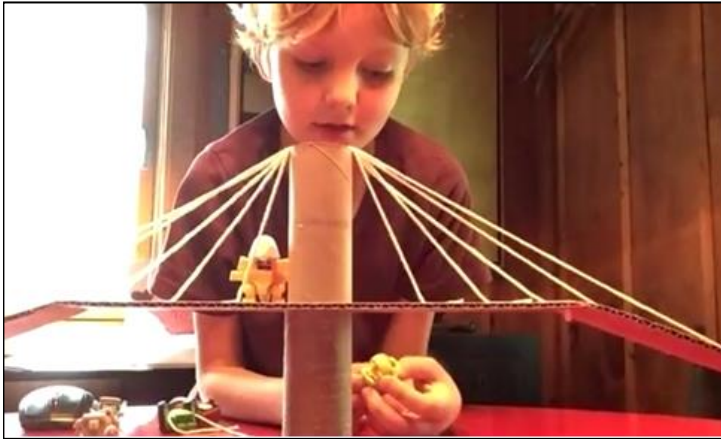


Build a Cable-Stayed Bridge

A cable-stayed bridge is a type of suspension bridge that uses diagonal cables, or **stays**, to hang the roadway. These cables stretch directly from a central tower to the roadway and use the pulling force of tension to hold up the road and the weight of traffic along its span. Read more about this type of bridge and others in our [Building Bridges Activity Guide](#), then create your own cable-stayed bridge and see what it can hold up!



Materials

2 cardboard tubes ▪ Cardboard strip ~ 2" x 12" ▪ Yarn or string ▪ Glue ▪ Tape

Instructions

Step 1

Glue the cardboard strip in between the tubes so they stand on top of each other to create a tower in the middle of the roadway. Make sure the glue has dried and the tower is strong before moving to the next step.

Step 2

Tape a piece of string that stretches from the top of the tower to each end of the roadway. You can cut a small slit into the end of the roadway and slide the string into this to help anchor it before taping it on the underside of the roadway. Rub the tape in place to make sure it is well attached.

Step 3

Add two more pieces of string that stretch from the tower to a point further in on the roadway on both sides. Tape these to the top of the roadway or poke a hole in the roadway and push the string through to tape on the underside. Make sure both sides of your bridge match so your structure is balanced.

Step 4

Hold the tower at the bottom and put a toy car or other weight on your bridge roadway. You should see the strings stretching slightly in tension to hold up this weight. Glue your tower to a base for extra support and add details like water, boats, and land at each side to complete your bridge!