

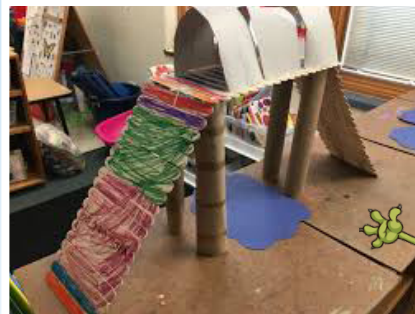
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8 Spring Street
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STEAM

CHALLENGE WEEK: 2

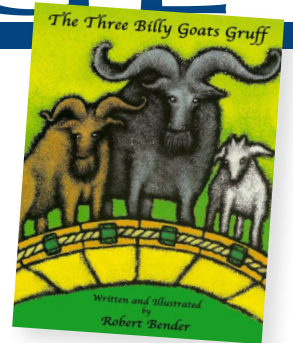
Build-A-BRIDGE



"The Three Billy Goats Gruff", a Norwegian Folktale by Robert Bender

PROBLEM:

The three Billy goats need a bridge to walk over and the troll needs a bridge to live under.



STEAM CHALLENGE:

Research what type of bridge you would like to build, be creative. Make a few sketches of your design before you actually start to build it. That's what great engineers do!

Criteria: Your Bridge must: • Be at least 12" long • Support 3 toy goats • Have a way for the goats to get on and off the bridge

1. How did you structure your bridge?

2. What materials did you use?

- Cardboard or cardboard tubes • Paper clips, straws, toothpicks, popsicle sticks • Construction paper, tape, Styrofoam, egg cartons, string, clay, paper cups?



3. How did you decorate your bridge?

4. How is your bridge different from the design sketch?

REACH QUESTION: Look up the following bridges

and decide which one you would like to build:

- Truss bridge • Beam bridge • Suspension bridge
- Arch bridge • Cantilever bridge



BONUS QUESTION: Why is the troll so angry?

