

ENGINEERING CHALLENGE

DIRECTIONS

The Joker has wreaked havoc on Gotham City's bridge. Now it's up to Batman and Robin and some super friends to save the day! They've teamed up to rebuild the bridge...except they have no idea how to build a bridge! But that won't stop them. Batman and Robin plan to work together, sharing their ideas and learning from their mistakes until they get it right.

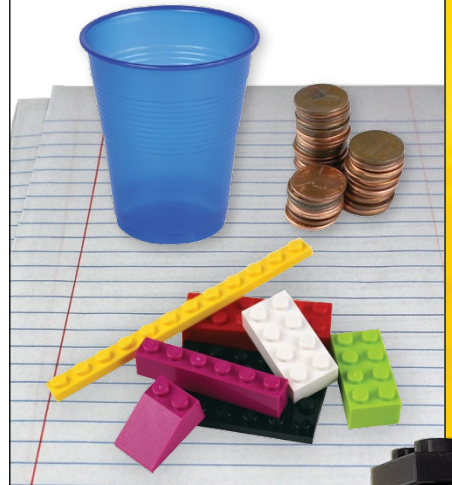


DIRECTIONS

- 1** Using LEGO® bricks, wood, or other materials, build two support towers for your bridge. Each support tower should measure 2" x 4" x 6".
- 2** Place the two support towers about 5" apart.
- 3** Begin Engineering Trial 1 by arranging the piece of paper so that it rests on the towers. You may manipulate the paper any way you see fit, but you may not add any materials, such as tape, glue, clips, etc.
- 4** Place the cup on the paper and add pennies until the bridge collapses.
- 5** Record the number of pennies the bridge held before it collapsed and complete the **Engineering Trial 1** section of the Engineering Challenge Recording Sheet.
- 6** Refine your design for Engineering Trial 2 and retest to see how many pennies the new design can hold. Complete the **Engineering Trial 2** section of the Engineering Challenge Recording Sheet.

MATERIALS PER GROUP

- LEGO® bricks, wood, or other available materials
- One sheet of 8.5" x 11" paper
- 50–100 pennies
- Small paper or plastic cup



TEAMWORK TIPS

LISTEN • EXPLAIN • ASK • SUPPORT



