



BRIDGE BALANCE

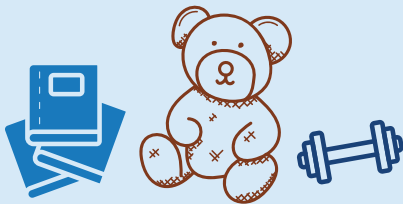
Welcome, engineers! To complete your badge, use both reading and STEM skills to learn how to build a bridge that can hold the weight of an object you choose.

1. Use your reading skills to draw or write your bridge plans.
2. Imagine and plan your bridge using simple household items.
3. Create your bridge and improve it by testing and making it stronger if it bends or falls.
4. When you are done, be sure to put everything back where you found it and visit [RIF.org/Summer](https://www.RIF.org/Summer) for more reading fun.

STEP 1: ASK

Third - Fifth Camper

Your challenge is to build a bridge that can hold the weight of an object you choose. What makes a bridge strong, and what should you think about before you start building?



STEP 2: IMAGINE

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Think of different bridge ideas. Could certain shapes, folds, or supports help your bridge hold more weight?



STEP 3: PLAN

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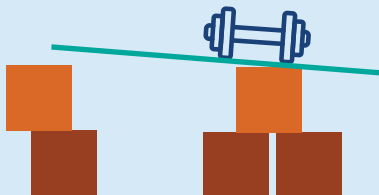
Sketch your bridge or describe your plan. What materials will you use, and where will you place supports to help it stay strong?



STEP 4: CREATE

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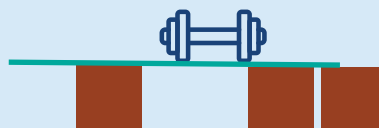
Build your bridge and begin testing it with your object or added weight. Watch carefully—where does the bridge stay strong, and where does it start to bend?



STEP 5: IMPROVE

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If your bridge bends or collapses, that's part of engineering! What can you change to make it stronger next time?



THE RIF ENGINEERING DESIGN PROCESS

