BRIDGE BALANCE

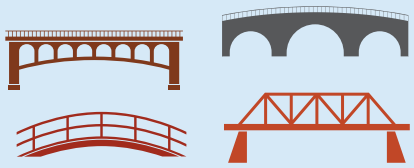
Welcome, engineers! To complete your badge, use both reading and STEM skills to learn how to build a bridge that can hold the weight of an object you choose.

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** for more reading fun.

STEP 1: ASK

K - Grade 2 Camper

"Today we're building a bridge that can hold the weight of an object you choose. What do you notice about bridges, and what might we need to think about so our bridge stays strong?"



STEP 2: IMAGINE

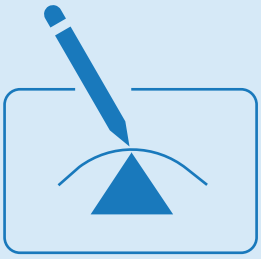
K - Grade 2 Camper

"What are some different ways we could shape or arrange the materials to make a bridge? Have you seen bridges with special shapes or patterns that help them hold weight?"

STEP 3: PLAN

K - Grade 2 Camper

"What is your idea for the bridge? Would you like to draw a quick picture or explain how you want to build it before we start?"



STEP 4: CREATE

K - Grade 2 Camper

"Let's start building! What do you notice happening as we add the object or weight to the bridge? Where does the bridge seem strong, and where does it start to bend?"

STEP 5: IMPROVE

K - Grade 2 Camper

"What do you think we could change to make the bridge even stronger? Should we try a new shape, add support, or build it a different way and test again?"

THE RIF ENGINEERING DESIGN PROCESS