



SfS Away from the Classroom

Engineering 3: (Re)Building a Bridge (Recommended for Grades 3-8)

Please use the following resources to learn about the engineering process and bridges!

Watch this Video: <https://www.youtube.com/watch?v=fxJWin195kU> and then answer these questions:

- What is an engineer?
- What's the first step of the engineering process?
- What does an engineer do if their first idea doesn't work?

Activities:

1. Watch this video and follow the instructions to make your own sturdy paper bridge!
<https://www.youtube.com/watch?v=XfQYqvC5phk>

You will need:

- 1 sheet of paper
- 2 books, markers, blocks, or any other 2 objects of the same height for propping up your bridge
- Several coins (or other small weights)

After testing the bridge designs in the video, try out some of your own! How many coins can a single sheet of paper support before collapsing? What designs work best? Keep testing different designs and ideas!

Make observations & use Claims, Evidence, and Reasoning!

1. **Claim:** Engineers and inventors often fail many times before they succeed.
 - **Evidence:**
 - **Reasoning:**
2. **Claim:** Modern devices (such as telephones) have gone through the engineering process many times.
 - **Evidence:**
 - **Reasoning:**