

# STRONG STRUCTURES

An activity to do after reading *The Three Little Pigs: An Architectural Tale* by Steven Guarnaccia

## Description

Compare and contrast different building materials by building a 3D design inspired by *The Three Little Pigs, An Architectural Tale* by Steven Guarnaccia.

## Audience

3–6 years, with adult supervision

## Time

30–45 minutes

## Materials

- Paper scraps, materials from the recycling, cotton balls, or other found materials at home
- Pipe cleaners
- Popsicle sticks
- Aluminum foil; alternatively, wax paper, tissue paper, or paper towels
- Recycled cardboard
- Construction paper
- Colored pencils/markers
- Glue
- Tape (any kind)
- Scissors

## Guiding questions

- 1 Take a moment to walk around your home. What are some of the materials that your home is made of? Can you find a place where there is wood in your home? Metal? Or glass? What are some other materials that you encountered? Where did you find these materials?
- 2 Of the materials that you gathered to build with, which ones do you think are strong, and which ones are weak? How did you figure this out? What are some other words you would use to describe the materials?

## Instructions

- 1 As we learned from the Three Little Pigs, we have to be really thoughtful about what materials we use for our homes so that they are sturdy and safe, and can't be blown down by Wolves! Before we begin using our materials, come up with a plan for your design. What could your sturdy home look like? What shape will your home be? What color will it be? Where will you put decorations? Sketch it out!
- 2 Now, take a look at the materials you have gathered and pick which ones you want to use to build your sturdy home. How will you use those materials? Will the cardboard be strong, stone walls? Will the aluminum foil be metal beams, or shiny glass? Where will you put other, unique materials that you found at home? How will you get all of your materials to stick together? Do you think you can use a mixture of strong materials and weak materials?
- 3 Next, start building! As you build, be sure to use some of your ideas from your brainstorm, but don't be afraid to test out new

ideas and try again. Building a sturdy house is a big challenge, and experimentation is a part of the fun of discovering how you can build the best version of your sturdy home.

- 4 Once you have finished your build, and any glue has had time to dry, find a space where you can test the strength of your home, like a clear table or floor. Then you, or a trusted adult, can pretend to be the Big Bad Wolf. Huff and puff a few times for practice, then try to blow down your house to see if it can withstand the force. Did your house fall over? Did it stay up? If your home was damaged, what are some ways that you can fix it? Continue testing your home's resistance to the huff and puff of the Big Bad Wolf until it can stay up on its own.

## Share your work

We'd love to see your work! Share your creation with the Chicago Architecture Center on Facebook or Instagram, using the hashtag #ChiArchitecture

## Take it a step further!

Each of the Three Little Pigs is inspired by real architects. The three architects are: Frank Lloyd Wright, Frank Gehry, and Philip Johnson. With a trusted adult's assistance, research some of the projects built by these three architects. Could you replicate and build any of their designs with materials from home? Do you feel inspired by any of their designs to create your own?

Many more challenges await. Visit our website [architecture.org/learn](http://architecture.org/learn) where we regularly post new activities.