



# Activity: Famous Buildings

## What You'll Need:

### Included in the kit:

- Modeling clay
- 30 toothpicks

### You'll need from home:

- A plate (to build on)

## Procedure:

<b>FAMOUS BUILDINGS: EGYPTIAN PYRAMID</b>
<b>Step 1</b> Get your modeling clay and toothpicks. Get a paper plate or other plate from home.
<b>Step 2</b> View the building cards on the last 2 pages of this document. We'll be working on the Egyptian Pyramid during our STEAM expo, but we encourage you to build all of them!
<b>Step 3</b> Start with two toothpicks. Every time we put the toothpicks together, you're going to make a small ball of clay (pinch/roll it in your fingers).
<b>Step 4</b> Connect the first two toothpicks with a ball of clay to make a right angle. Hint: The corners of this page are also right angles.
<b>Step 5</b> Get another ball of clay, place it at the end of the toothpick, and put another toothpick into it. Continue until you've made a square base for the pyramid with 4 toothpicks and 4 clay balls.
<b>Step 6</b> Get another ball, and we're going to be making a triangle top on the square. So, every toothpick you put in should lead up to the ball of clay in the middle.
<b>Step 7</b> You will need eight more balls of clay and eight more toothpicks, to make a larger square.
<b>Step 8</b> Attach four toothpicks to the corners of the larger square, pointing each of them inward. Then, attach the small pyramid to those toothpicks to create a larger Egyptian pyramid. Like an architect, you've created a model of a building. Bravo!

SOURCE: The Winkle



This STEAM Expo activity was inspired by [The Famous Buildings](#) activity by The Winkle.

### OPTIONS

Check out The Winkle's [video](#) online for instructions to use modeling clay and toothpicks to create these three famous buildings:

- **Egyptian Pyramid** (see [video](#), starting at 1:16 minutes)
- **The Empire State Building** (see [video](#), starting at 7:08 minutes)
- **The Eiffel Tower** (see [video](#), starting at 12:14)

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## The Science Behind It:

(And some fun facts!)

### Do you know what it means to be an architect?

An architect is someone who figures out how to design and construct a building. Like the Empire State Building, for instance. They didn't just start building and see what happened. They had to have an architect figure everything out and then they built it. Does that make sense?

This experiment is all about studying architecture, which is the design and process of making a building. And if you follow The Winkle's video to complete all three buildings, you'll basically go on a world tour. How cool is that?!

And here are some cool facts about these famous buildings:

**The Egyptian Pyramids** – The Egyptian Pyramids are ancient pyramid-shaped masonry structures built from roughly 2550 to 2490 BC. That means they're made of brick. They're located in Egypt. The real Egyptian Pyramids are 455 feet tall. The Egyptian Pyramids housed tombs, you know, the dead pharaohs and that sort of thing.

**The Empire State Building** – Now let's go to the Empire State Building. Do you know where that is? New York City! This activity is a very simplified version of the Empire State Building. In the original building, the top floor is 1250 feet tall. Wow! Currently, it's the fourth tallest building in New York City, and the sixth tallest in the U.S., and the 43<sup>rd</sup> tallest tower in the world. When the building construction was completed in 1931, this massive building was the tallest in the world, for almost 40 years.

**Eiffel Tower** – The last building we're checking out is the Eiffel Tower and you know where that is? Paris! It was created as a tourist attraction and now (during an average year) around 7 million people go to visit it each year. Construction of the wrought iron structure started early in 1887 and was completed in 2 years, 2 months, and 5 days back in 1889. It's named after the engineer Gustav Eiffel, whose company designed and built the tower.





 **Egyptian Pyramid**





 **The Empire State Building**



