

Scientist Name:

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Today Science Club are going to be.....

## ENGINEERS!

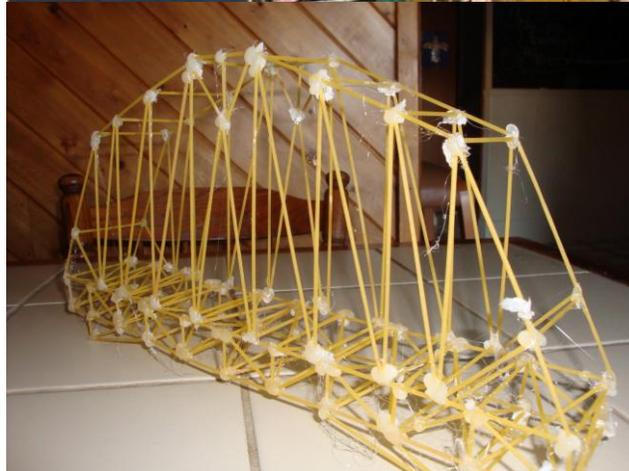
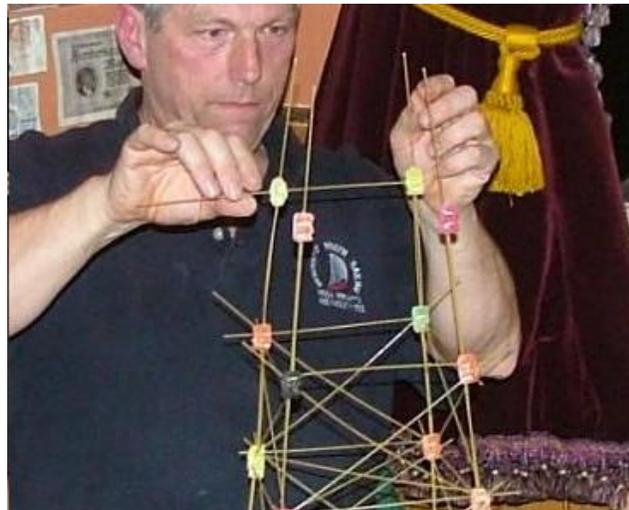
An **engineer** is a person who designs, builds, or maintains engines, machines, or structures. YOU are going to be BRIDGE/TOWER engineers!

The Zhaozhou Bridge is the **world's oldest stone arch bridge** and is in China. Built in 605 AD, it is still standing today, over 1400 years later.

The **Incas** in South America used **rope bridges** in the Andes Mountains before Europeans colonized in the 1500's. These crossed canyons and gorges. While strong and reliable, repairing them was a dangerous job that often ended in death!

The word **skyscraper** referred to a type of sail on a ship. The **building** is held together by steel vertical columns, horizontal and diagonal beams. This structure spreads the immense weight of the building.

**Task:** You are going to build BOTH a tower AND a bridge in teams. Who can build the TALLEST tower or the bridge that SPANS the widest gap?



## Engineer Quiz

1. Did the Eiffel Tower open in 1789 or 1889?
2. The oldest metal bridge is in IronBridge gorge, but where is it? England? USA? Or France?
3. A keystone is: a stone shaped a like a key? The middle block of an arch bridge? Can be used to break through doors?
4. The fastest lifts in a building can rise 50m a minute? 100m a minute? 1000m a minute?
5. Can astronauts see the Great Wall of China from space? YES/NO
6. The world largest pyramid is in Mexico, Egypt or Brazil?
7. The Titanic was a ship that sank in 1912. It carried 2,200 people, but how many could fit in the life rafts? 1,200? 1,800 or 2,200?
8. The Channel Tunnel stretches from England to France. But how long is it? 13 miles? 31 miles? Or 51 miles?
9. What does the abbreviation WWW stand for? \_\_\_\_\_
10. Solar power generates electricity from what source? \_\_\_\_\_