

DT

LO: to recognise and use strong shapes in  
architecture

# This week....

Design and build a strong bridge. Use recycling or any craft supplies at home for building. Check out the tips from engineers in the next slides to make sure your bridge can hold weight safely.

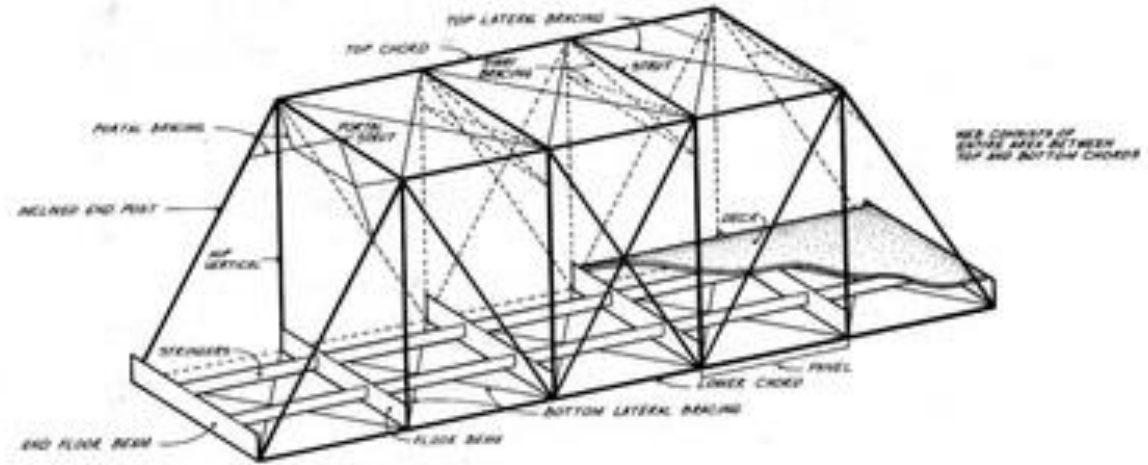
Challenge yourself to see how lightweight you can make your bridge, and how much weight it can hold. You can use kitchen scales to weigh your bridge, and what it can hold. Try testing it with tinned goods.

Make sure you upload a photo or video to seesaw so we can see!

Here are some types of bridges to consider from <http://whatmakesabridgestrong.weebly.com/>

#### Truss:

A truss bridge is a bridge that relies on its cross sections to provide strength and the frame around it. It is reasonably strong.



#### Arch:

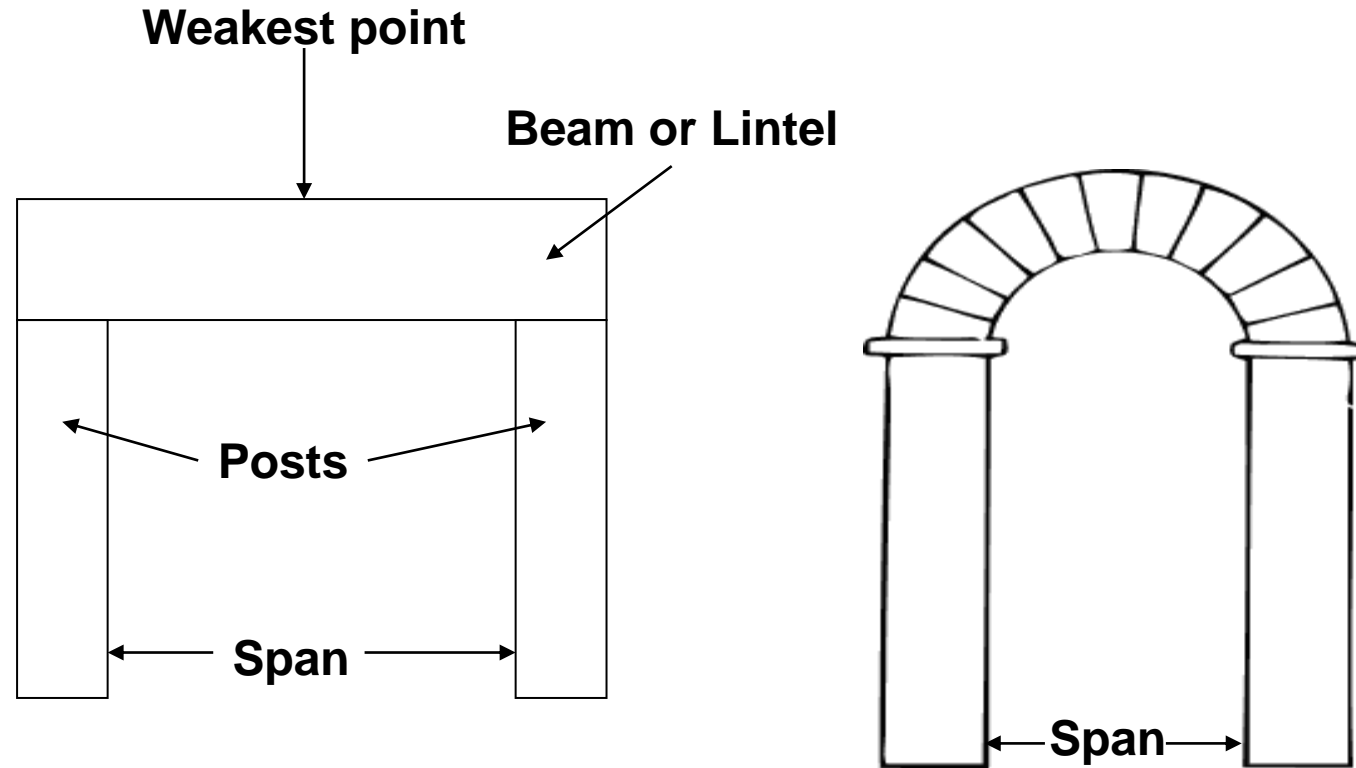
The arch bridge gets its strength from the arch which disperses the weight or load. It also has beams like the truss bridge for extra strength. It is stronger than the truss bridge.

#### Suspension:

The suspension bridge is suspended by wires that drop down from another wire. It supports medium loads and is used to travel long distances.



# Why is the arch stronger?



Engineers will tell you that the beam (or lintel) is weakest in the centre where it is furthest away from the posts, but the weight on an arch is evenly distributed across the span. This makes an arch much stronger.