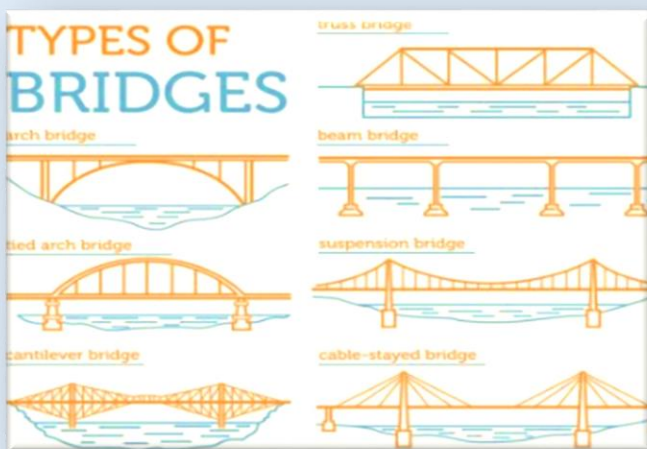


Bridges



Bridges are structures built over railroad tracks, roads, rivers or some other obstacle. They allow people or vehicles to cross from one side to another. Bridges must be built strong enough to safely support their own weight as well as the weight of the people and vehicles that pass over it.



A website to show you different bridges:

<https://easyscienceforkids.com/all-about-bridges/>

<https://watchkin.com/43abd36627> - Video about what makes bridges so strong!

Building Bridges



Year 3

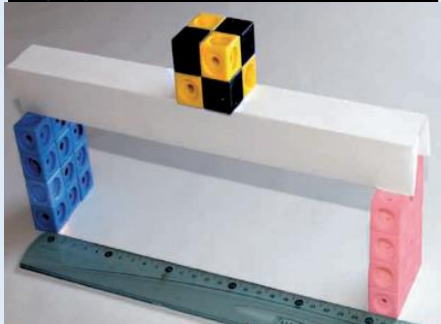
Your task is to build a **beam bridge** out of paper to hold the weight of a toy car. You need to experiment with folding and combining papers in order to make them stronger. Experiment with different papers and try layering the papers up to make them even stronger!

Beam Bridges

A beam bridge is the simplest type of bridge that you may come across. Think of a plank of wood that someone might use to cross a stream: this is a simple beam bridge. The beam part of the bridge is supported at either end, where the weight of the bridge pushes down.



Year 4



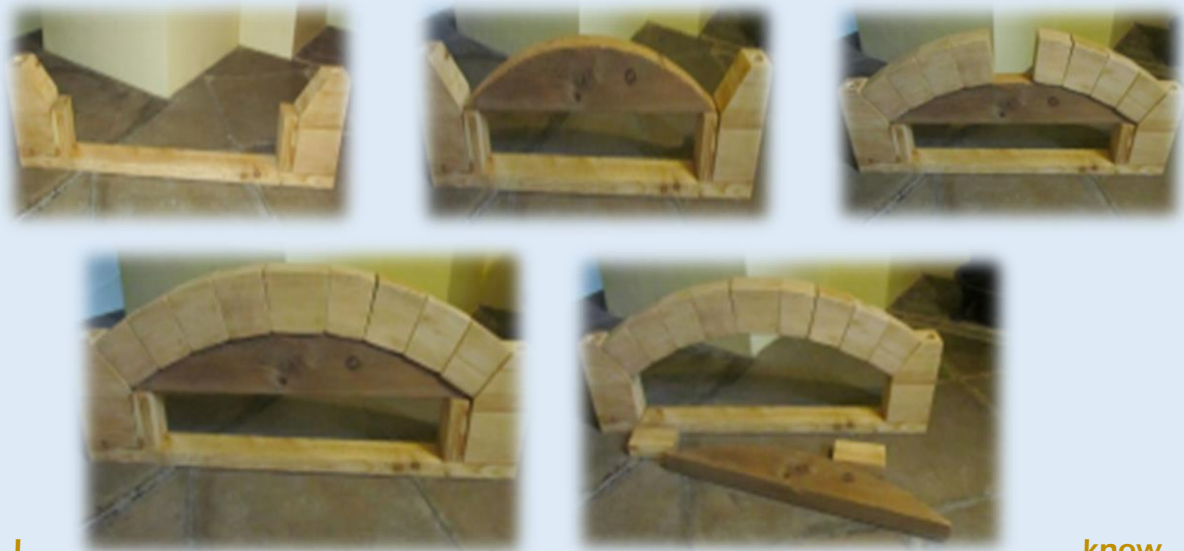
Build the longest bridge you can using just one piece of A4 paper! The structure of this bridge will probably resemble a beam bridge. It may sound easy but it is more difficult than you think. You may need several attempts before you reach a bridge you are satisfied with.

You must only use one piece of paper and scissors!

<https://watchkin.com/af6ac0cc95>

Year 5

Build an Arch, Roman Style!



I know materials may be limited but you can improvise with what you have available in your house! You need two sturdy walls either end (which could just be old boxes or something stable.) For the centring you need a cylinder so something like a Pringles tube would be perfect. Next, you need to find some blocks/bricks all similar sized and stick them together one by one with playdough or salt dough. Make sure to press the blocks together to make a good sturdy bridge. Now you can remove your cylinder tube and there you have your arch bridge!

Year 6



<https://watchkin.com/faa56d819e> Here are some ideas for how to make a truss bridge. Watch up to 3:00 minutes for the info you need.



Above are some patterns and structures that successfully work for a truss bridge. Can you recreate them to make your bridge?

You can use any materials you can find. If you feel like a

challenge why not try spaghetti! Or you could use cardboard and lollipop sticks. You can be as creative and inventive as you like.

Extra activities...



Watch the video for an alternative and creative bridge structure! It's nice and easy 😊
<https://watchkin.com/952d51b62b>

<https://heritagecalling.com/2017/07/17/7-iconic-bridges-of-england/> Write a pamphlet or visitors guide about bridges in the U.K. Watch the video above to help you.



Try recording an instructional video to explain how to make a bridge! You could use a mobile phone or iPad (remember to ask an adult to help you.)

Please share photos of your bridge creations on the school Twitter account: <https://twitter.com/Thornton0wls>