NES Science Week Competition

Test your child's Science, Technology, Engineering & Maths (STEM) skills!

Design & Create Your Own Bridge

Connections

Using this year's theme of 'Connections' we would like children to design and create a bridge.

Your bridge will need to take the weight of a small toy car!

Year group winners and prizes will be announced in Whole School Assembly.

All entries to be handed in to Mrs Hayre-Milne by Monday 20th March.

The information below may help you get started on your design!

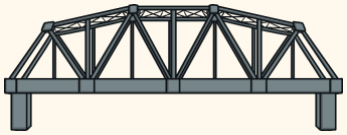
Children are allowed to use materials of their choice to construct their bridge. Encourage your child to think about the following;

What type of bridge shall I create?

Suspension bridge; *use a force called tension which means we pull it tight.*

Beam Bridge;* a *simple bridge that is only supported by piers. The further apart the pier, the weaker the bridge.

Truss Bridge; these will all have triangles to help make the bridge stronger - as force is pushed down the sides.

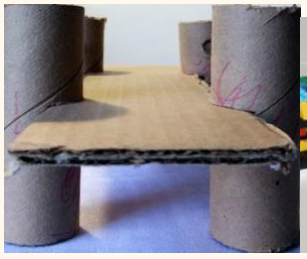


How can I make my bridge stronger?

Consider how far away the ends of the bridge need to be and still support a certain amount of weight. Bridges are designed to withstand forces pushing down upon them. Could you double up the straws? Or could you create triangular shapes to give your bridge more strength?

What materials can I use?

Straws, construction kits, paper, card, wooden lolly sticks, wire, aluminum craft wire, tape, plasticine fabric and anything else you think will help your design!



You may wish to use a bridge from around the world to help inspire you!

Golden Gate Bridge, San Francisco, California

Akashi Kaikyo Bridge, Kobe, Japan

Sydney Harbour Bridge, Sydney, Australia

Tower Bridge, London, England