

Learning from Home: Building Bridges

KS2 children aged 7-11 years (can be adapted for KS1 children aged 5-7 years)

Learning Objectives	Resources
<ul style="list-style-type: none"> Understand the wide variety of structures crossing rivers, canals and other barriers to travel. Appreciate the design and engineering that goes into bridge building. Understand how building bridges changes communities. 	<ul style="list-style-type: none"> Blow-up Bridge Building Bridges film Building Bridges teachers guidance notes Building Bridges presentation Building Bridges activities Yoga: bridge pose Bridge colouring sheet
Success Criteria	
<ul style="list-style-type: none"> Children will know that there are many types of bridge Children will understand their effect on the local community Children will build different bridges and test their strength noting which type is strongest 	
Teaching/Parent Input	
<p>Start by asking the children what they know about bridges. What is a bridge? Have you ever been over or under a bridge? What material was the bridge built from? Are there bridges in your local area? What obstacles do they span?</p>	
Activities	
<p>Read: about blow-up bridge on the Regent's Canal Watch: building bridges film to support the practical activities Do: the building bridges presentation and practical activities using the teacher's guidance notes to support Play: try the yoga bridge pose to make your body into the shape of a beam bridge. Can you make your body into the shape of an arch bridge? Create: colour outside of the lines to complete the bridge drawing</p>	
Suggestions	
<p>Research famous bridges from around the world. Where is the longest bridge in the world? What is the most expensive bridge in the world? Where is the tallest bridge in the world? Try building different types of bridges out of Lego.</p>	
Plenary	Key Words
<p>Reinforce the key words Can you think of any shapes in nature that use an arch for strength? E.g. the human skull, eggs.</p>	<p>KS1: arch, build, force, transport, beam, connect, force, join, wood, iron KS2: construction, engineer, vertical, cantilever, suspension, viaduct, keystone, aqueduct, structure, pressure, tension, compression</p>
Useful websites/external resources	Get Outside Ideas
<p>Institute of Civil Engineers world record Lego bridge https://www.ice.org.uk/events/exhibitions/ice-bridge-engineering-exhibition/building-the-lego-bridge# BBC Bitesize What are bridges made from? https://www.bbc.co.uk/bitesize/clips/zjvfb9q</p>	<p>Build a suspension bridge in your garden using pg24 in the Building Bridges activity pack for ideas. Build bridges in the garden with your family out of things you can find or make.</p>