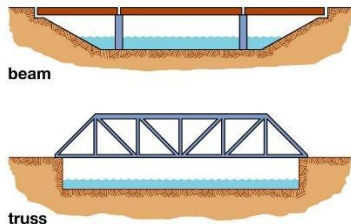


<b>Our Lady and St Edward's Knowledge Organiser</b>	<b>Year 1 - Design and technology</b>	<b>Autumn</b>	<b>Construction</b>
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**Outcome:** Design a bridge using the Swiss Bridge in Birkenhead Park as a stimulus. Use a range of materials and compare suitability based on strength.

<b>Structures</b>	<b>Key Vocabulary</b>
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Structures are things that are built for a purpose. Structures can be large e.g. buildings or bridges or small e.g. chairs or tables Bridges need to support the weight of the object using them, so must be well-designed, strong, rigid and stable.



**-Construction:** The building of houses, factories, roads and bridges. **-Bridge:** A structure carrying a road, path or railway over an obstacle such as a river.  
**-Structure:** A building or other object built from several parts.  
**-Rigid:** Unable to bend, stretch or twist easily. Not flexible.  
**-Flexible:** Can bend easily without breaking.  
**-Design:** A plan or drawing produced to show the look and function of a building or other object before it is made.  
**-Make:** To form something by putting parts together.  
**-Evaluate:** To decide if your design or structure meets its purpose.  
**-Architect:** A person who designs buildings and structures and supervises their construction.  
**-Function:** Use or purpose of the design or structure.  
**-Purpose:** The reason for which something is created.

**Health and Safety - All children should be supervised when using equipment.**

<b>Key Knowledge</b>	<b>Resources to support leaning</b>
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Name: Swiss Bridge  
Location: Birkenhead Park, Birkenhead  
Dimensions: 7.01 m (23 ft)  
Built: 1843-7, Victorian Era Designer  
Architect: Lewis Hornblower  
Key Info: The Swiss Bridge is a Grade II listed footbridge over part of the east lake. The bridge has been renewed several times since it was first constructed. It is the only covered bridge of traditional wooden construction in the UK.



<https://www.birkenheadpark1847.com/parkat-war>  
<https://historicengland.org.uk/serviceskills/education/educational-images/swissbridge-birkenhead-park-9034>  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/239041/PRIMARY\\_national\\_curriculum\\_-\\_Design\\_and\\_technology.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239041/PRIMARY_national_curriculum_-_Design_and_technology.pdf)  
**Books:** • Cross a Bridge. by Ryan Ann Hunter • Building Bridges. by Tammy Enz • Alphabet Under Construction by Denise Fleming

<b>What I should already know:</b>	<b>By the end of this unit, I will know:</b>
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- Our school is in a town called Birkenhead.
- There is a bridge in Birkenhead Park.
- There are bridges near our school in the docks.

- What is a bridge?
- Why is a bridge needed in certain places?
- Why do bridges need to be strong?