

|  |
| --- |
| Unit of study: Structures  |
| Learning Objective | DT content | Learning Outcome | Key Knowledge/Skills |
| Can I make a range of different shaped beam bridges?Can I design a stable structure that is able to support weight?Can I build a wooden bridge structure? | Can I test and analyse various types of bridge to determine their strength and stability?Can I explore material properties and sources, before marking, sawing and assembling a wooden truss bridge? | Can I design a stable structure that is able to support weight?Can I create a frame structure with a focus on triangulation?Can I make a range of different shaped beam bridges?Can I use triangles to create truss bridges that span a given distance and support a load?Can I build a wooden bridge structure?Can I independently measuring and marking wood accurately?Can I select appropriate tools and equipment for particular tasks?Can I use the correct techniques to saws safely?Can I identify where a structure needs reinforcement?Can I explain why selecting appropriating materials is an important part of the design process?Can I understand basic wood functional properties?Can I adapt and improve my own bridge structure by identifying points of weakness and reinforcing them as necessary?Can I suggest points for improvements for my own bridges and those designed by others?Can I understand some different ways to reinforce structures?Can I understand why material selection is important based on properties?Can I understand the material (functional and aesthetic) properties of wood?Can I understand the difference between arch, beam, truss and suspension bridges? Can I understand how to carry and use a saw safely? | Children to design, make and evaluate their own bridge structures. They should consider how to make their bridge as strong as possible by reinforcing it with different materials.  |