



The Project Title	Design, make and evaluate an adventure playground model for children to use for recreation.
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What should I already know?
<ul style="list-style-type: none"> <li>• Experience of using measuring, marking out, cutting, joining, shaping and finishing techniques with construction materials.</li> <li>• Basic understanding of what structures are and how they can be made stronger, stiffer and more stable</li> </ul>

Powerful Knowledge
<ul style="list-style-type: none"> <li>• Investigate and evaluate a range of existing frame structures</li> <li>• Carry out research into user needs of existing products</li> <li>• Create step by step instructions and a list of resources needed</li> <li>• Use tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks</li> <li>• Use finishing and decorative techniques suitable for the product</li> <li>• Use paper straws for creating a free standing structure</li> <li>• Explore how to reinforce structures to make them stronger</li> </ul>

### Useful Diagrams

#### Techniques for building frame structures

Roll paper to make tubes for construction

#### Joining straws

Drinking straw

Plastic tubing

Threaded and tied

Pipe cleaner

Straws split to fit round then glued

Straw flattened, wrapped around and glued

Glued to card

Ends of straws flattened and glued

One straw creased and inserted

Flattened and glued

Pipe cleaner

Sleeve glued around joint

Sticky tape

Vocabulary	
horizontal	a line that is parallel to the ground.
vertical	a line that is at right angles to the ground.
frame structure	a structure made from thin components e.g. tent frame.

