

# DT Playgrounds Year 6

## What I should already know

- Identify stronger and weaker shapes.
- Recognise that supporting shapes can help increase the strength of a structure, allowing it to hold more weight.
- Identify beam, arch and truss bridges and describe their differences.
- Use triangles to create simple truss bridges that support a load (weight).
- Cut beams to the correct size, using a cutting mat.
- Complete a bridge/structure, with varying ranges of accuracy and finish, supported by the teacher.
- Reinforce structures where necessary



## Sticky Knowledge

- To know that structures can be strengthened by manipulating materials and shapes.
- To understand what a 'footprint plan' is.
- To understand that in the real world, design can impact users in positive and negative ways.
- To know that a prototype is a cheap model to test a design idea.



## Vocabulary

apparatus	Equipment designed for recreation and play such as seesaws and swings
Plan view	A two-dimensional diagram used to describe a place or object from above with annotations and other details such as measurements
Dowel	Wood in the shape of a 'cylinder'. Dowels come in all different sizes and thickness
Jelutong	A type of softwood- lightweight and easy to cut and shape
Mark out	To measure and mark where a piece of material needs to be cut or shapes

## Technical skills

- Designing a playground featuring a variety of different structures, giving consideration to how the structures will be used.
- Considering effective and ineffective designs.
- Building a range of play apparatus structures drawing upon new and prior knowledge of structures.
- Measuring, marking and cutting wood to create a range of structures.
- Using a range of materials to reinforce and add decoration to structures.
- Improving a design plan based on peer evaluation.
- Testing and adapting a design to improve it as it is developed.
- Identifying what makes a successful structure.

